

THE MINING CONGRESS JOURNAL

JULY, 1920

VOL. VI

SAFETY-EFFICIENCY-CONSERVATION

No. 7



DANIEL B. WENTZ

Second Vice-President The American Mining Congress,
recently elected President the National Coal Association.

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JULY

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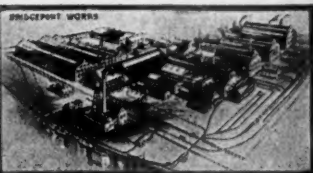
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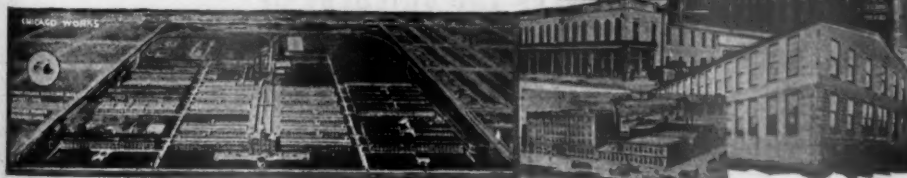
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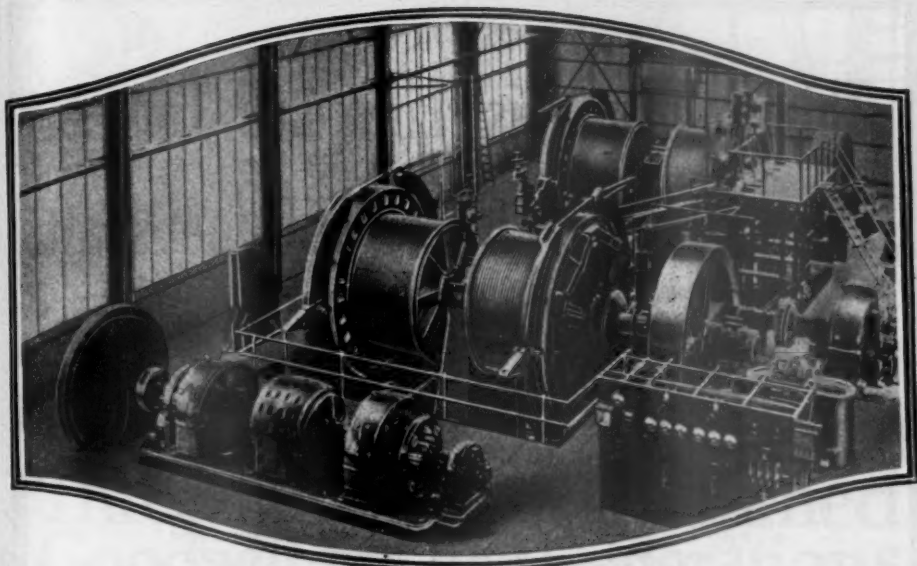
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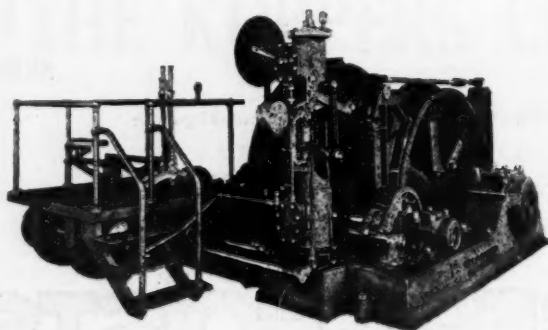
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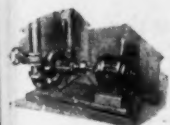
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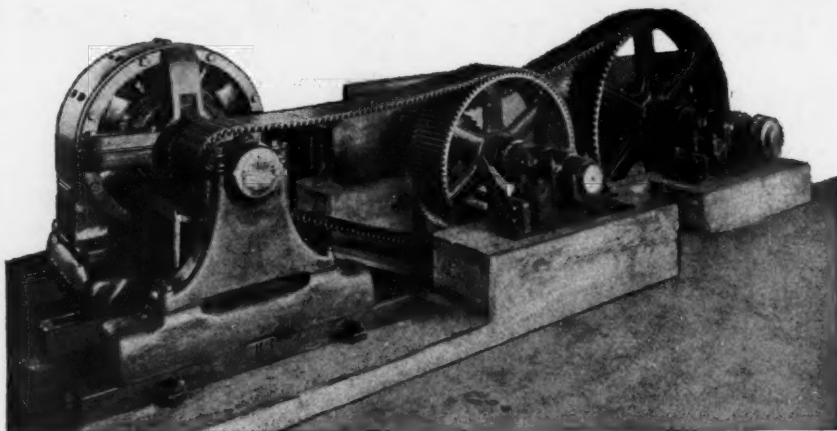
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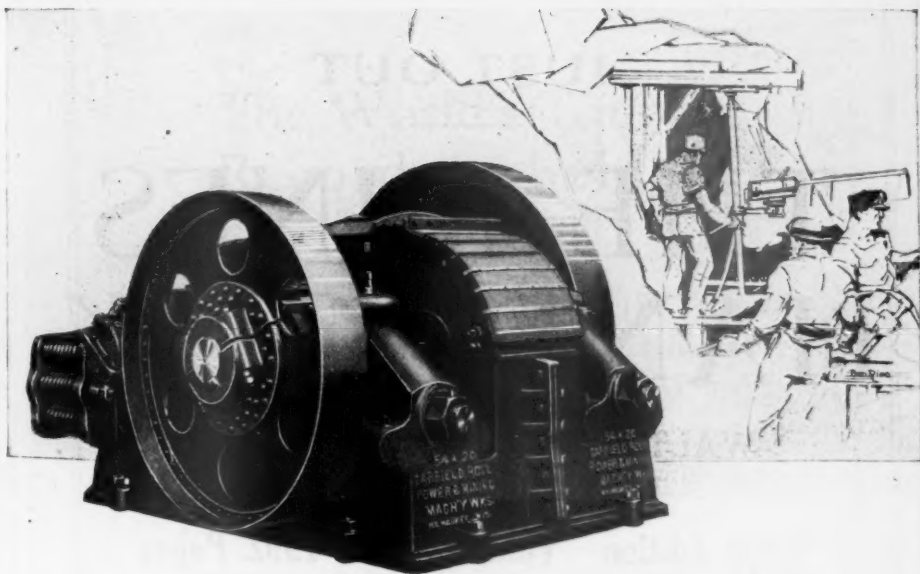
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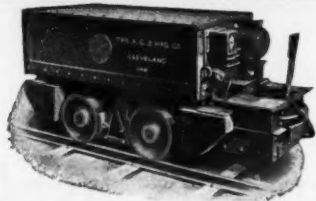
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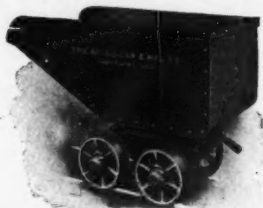


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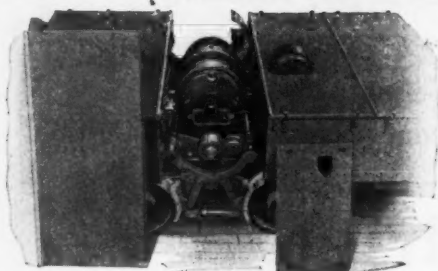
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IRONTON**
STORAGE BATTERY LOCOMOTIVE

A black and white photograph of a man operating a large industrial machine, likely a steam engine or pump, with a large flywheel and a tall vertical structure. The man is wearing a cap and a dark coat, and is standing to the right of the machine, holding a long horizontal rod or lever. The machine is dark and complex, with a large flywheel on the left and a tall vertical structure on the right. The background is plain and light-colored.

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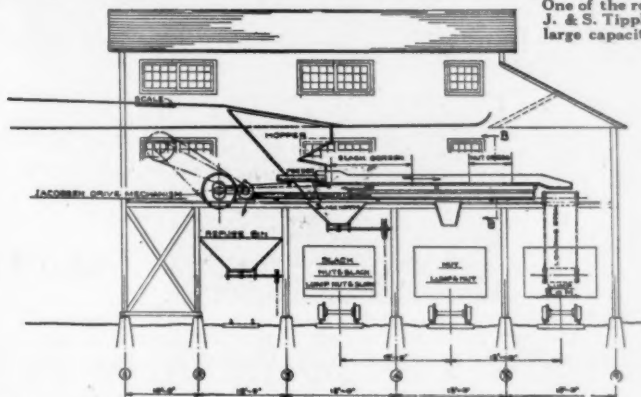
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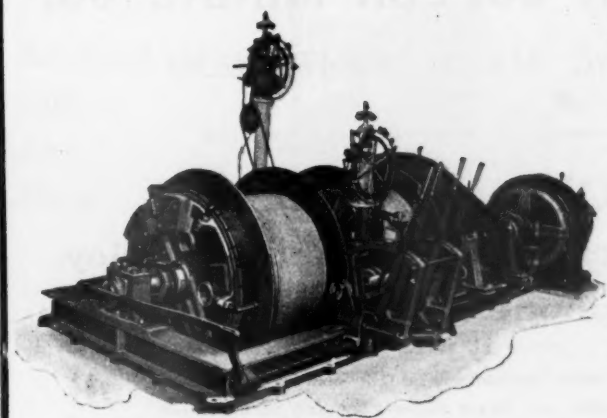


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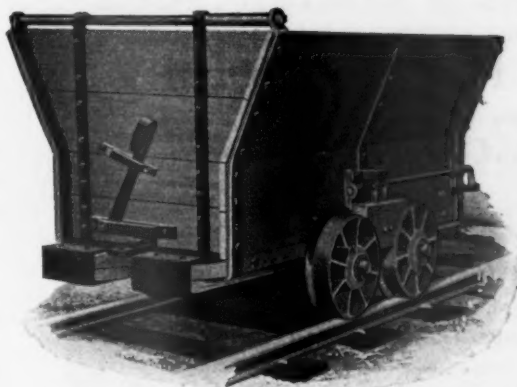
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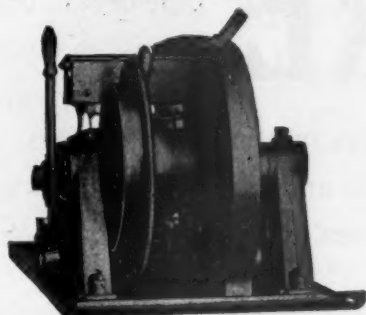
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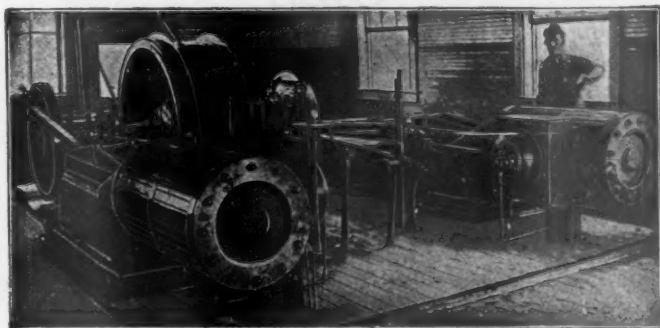
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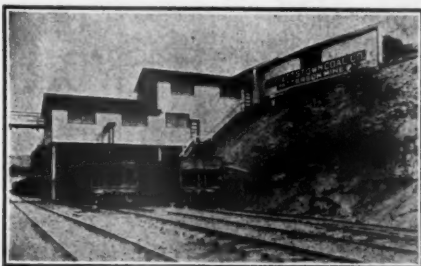
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Many mills continue using the oil mixture merely suggested in the preliminary tests; others have found more efficient ones by making practical mill runs on oils that have given the best results on similar ores.

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Complete Coal Mining Plants

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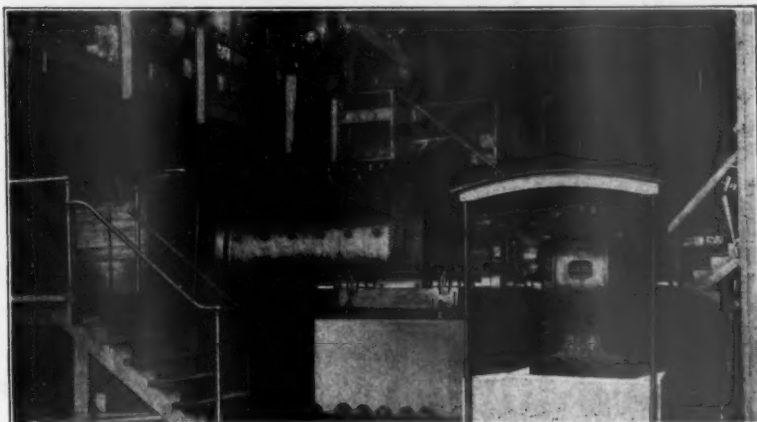
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satisfaction, you want the ability, reliability and responsibility of a master technical organization whose scope includes Engineering, Architecture and the many other departments of the

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Designing of Steel, Reinforced Concrete and Timber Structures. Bridges, Roadways and Land Drainage.

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Leschen Wire Rope Tramways are Economical Carriers

The use of Leschen Aerial Wire Rope Tramways for handling ore, coal and mine waste is not an experiment, for their efficiency for this class of work has been demonstrated by the actual operation of numerous installations.

We have had many years of practical experience in Tramway designing and building, and we shall be glad to advise with you as to the practicability of a Tramway for your particular conditions.

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The efficiency, as well as the safety, of your entire equipment is no greater than the efficiency and safety of the wire rope with which it is equipped.

Leschen Wire Rope is uniformly safe and durable, because of the principle on which it is made and the manner and method of its making.

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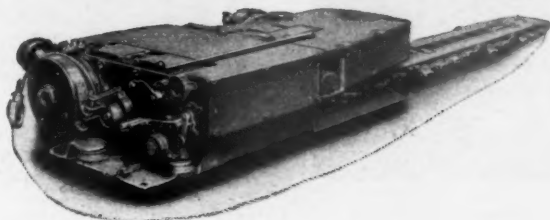
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THE GOODMAN LOW VEIN SHORTWALL MACHINE



Has passed its period of test in service and has proved itself perfect in design and performance.

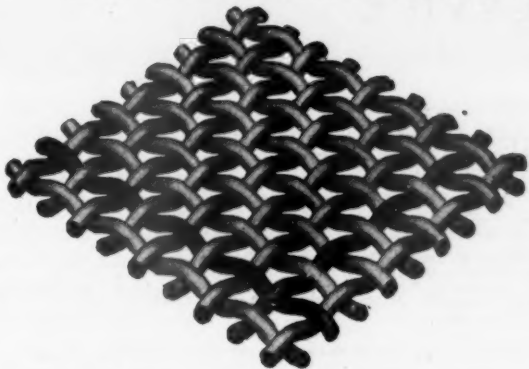
It is more than six inches lower than the Goodman Standard Shortwall Machine.

Book 203-M Tells About It

GOODMAN MANUFACTURING COMPANY
CHICAGO, ILLINOIS

(82)

IT'S THE DOUBLE CRIMP THAT COUNTS



The "Perfect" Screen book contains valuable data on wire cloth. Write today for a copy.

"If Better Screen Cloth Were Possible, Ludlow-Saylor Would Weave It"

THE LUDLOW-SAYLOR WIRE CO.
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In all "Perfect" Screens.

The wires are not bent, but *crimped*—they curve gradually and gracefully over and under the intersecting wire without any sharp angles—thus

Every wire is kept firmly in place.

All strain being equally distributed.

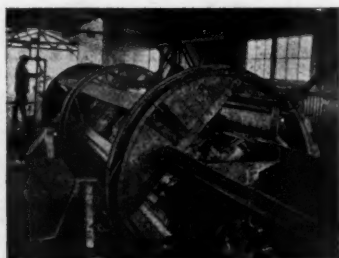
So assuring a uniform screening surface and uniform screen aperture as long as there is sufficient metal left to carry the weight of the material to be handled.

THE ROTARY CAR-DUMPER

At the Northwestern Mining & Exchange Company's
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Loaded Trip Ready to Enter Dump.



Dump Completed. Empty Cars below the Dump.

Saves from one-half to three-quarters the time usually required for dumping.
Reduces number of cars needed, as dumping is done rapidly, releasing cars quickly for reloading.

Enables use of more substantial solid-body cars, which last longer, require less repairs and prevent leakage of dust and coal along the haulage.

Saving of labor, saving of maintenance expense and increase of output, which means a larger production with same number of cars.

CAR-DUMPER & EQUIPMENT CO.

Eastern Sales and Engineering Office:

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(47)

AT YOUR SERVICE

IF YOU HAVE

Business in Washington with any of the Government departments, the American Mining Congress will be glad to serve its active members without charge, in any way consistent with its purposes, either in obtaining information, securing public documents, in advising as to the progress of legislation or in the consideration of complaints.

The American Mining Congress is an organization of service. Write us how we may serve you.

The American Mining Congress

Munsey Bldg.

Washington, D. C.

MYERS-WHALEY SHOVELING MACHINES

WILL SAVE YOU

MEN AND MONEY



Results prove that Myers-Whaley Shoveling Machines accomplish a saving of 50 per cent of the cost of hand mucking, in the actual loading operation.

Is your present output sufficiently large? If so, by employing *Myers-Whaley Shovels* you will require less labor and a smaller development; with the attending advantages of less track outlay, simplified ventilation, etc. But the crying need of the time is *increased production*. You can double your production, without increasing your development or labor supply, by using the *Myers-Whaley*.

Machines are made to suit any track gauge and are equipped for any commercial current or for compressed air.

Bring us your loading problems.

Myers-Whaley Company

Knoxville, Tenn., U. S. A.

The Roessler & Hasslacher Chemical Company



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CYANIDE OF SODIUM
96-98%

Cyanogen contents 51-52%

“CYANEGG”

or Cyanide of Sodium 96-98% in egg form,
each egg weighing approximately one ounce.

Pumps, Pipe and Fittings's of Hard Rubber

The safe method of conveying corrosive liquids is through *hard rubber* installations. Hard rubber is not affected by concentrated hydrochloric acid, hydrofluoric acid, caustic soda, copper sulphate, sulphuric acid (up to 50° Baume), nitric acid (up to 16° Baume) and practically all other acids, alkalis, cyanides, etc.

That means low upkeep expense and uncontaminated solutions.

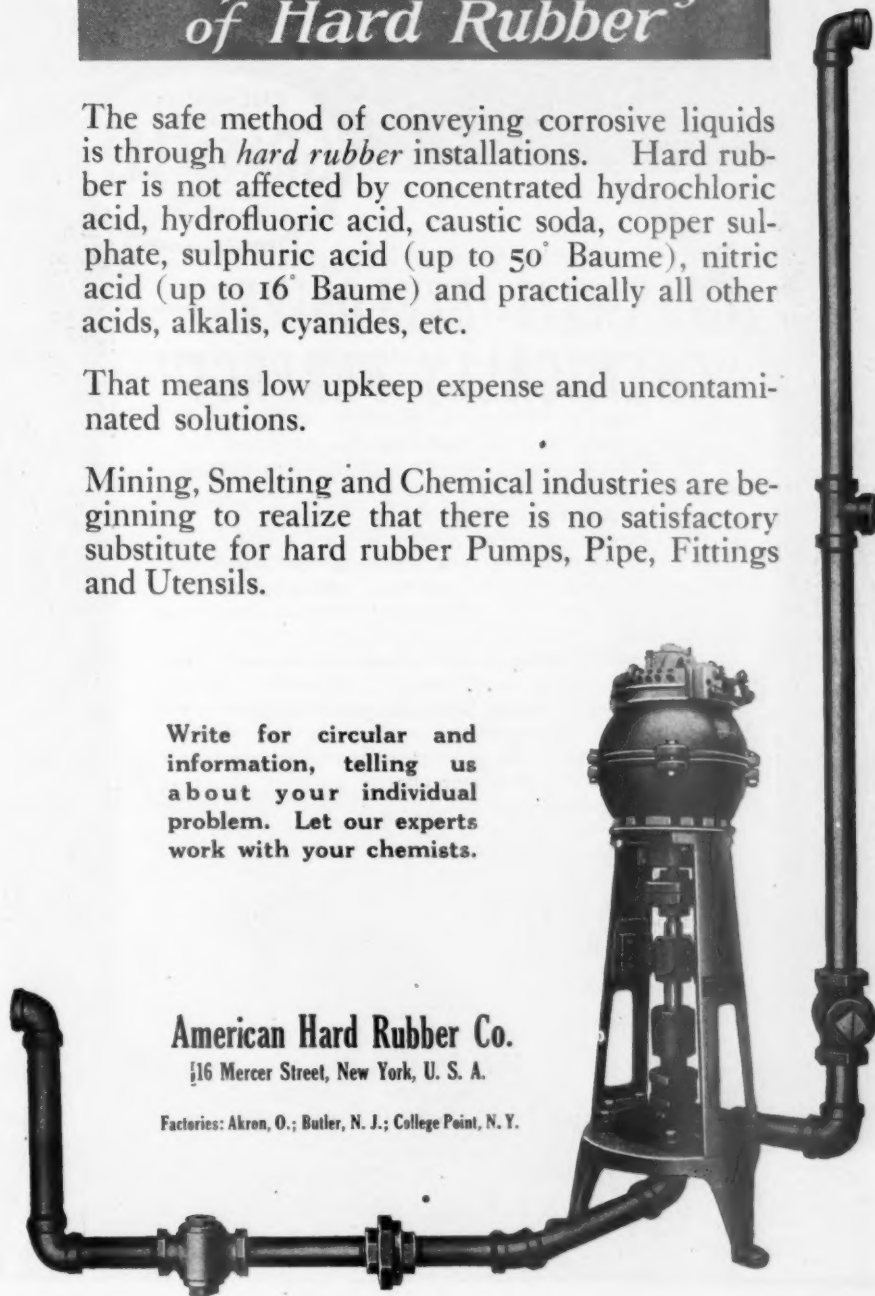
Mining, Smelting and Chemical industries are beginning to realize that there is no satisfactory substitute for hard rubber Pumps, Pipe, Fittings and Utensils.

Write for circular and information, telling us about your individual problem. Let our experts work with your chemists.

American Hard Rubber Co.

116 Mercer Street, New York, U. S. A.

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GRASSELLI EXPLOSIVES— “CHEMICALLY PERFECT”

“More coal! Speed up production!”

When that cry comes down from the world's consumers—when every minute must see something accomplished—it's then that your explosives must not fail you.

The expansive strength of your shots—their ability to bring down your coal in labor-saving, time-conserving fashion—depends primarily on the chemicals those shots contain.

Only explosives made with perfect chemicals assure perfect blasting.

The Grasselli Powder Company uses only “Grasselli” Perfect Chemicals—made for 81 years by the master chemists of The Grasselli Chemical Company—America's oldest and largest chemical manufacturers.

The “Grasselli” staff of service experts are ready and anxious to help you solve your blasting problems. Years of coal-mining experience and technical training in explosives enable them to help you speed production and cut blasting costs. A letter or wire will bring one to your mine.

**THE GRASSELLI
POWDER CO.**

Cleveland,
Ohio



BLAST

for your furnaces and converters is largely dependent upon the reliability of the driving power for your blowers. Failure of air may cause a freeze-up.

Westinghouse Motors For Blower Drive

Are designed and manufactured with full realization of the paramount importance of continuity of operation. Their mechanical construction is rugged and braced to withstand the vibration resulting from impeller impulses. Their efficiency is high, resulting in decided power saving during all day operation; their torque characteristics are such as to make starting simple and easy without expert attendance.

To obtain the best type of motors for your particular conditions consult Westinghouse Engineers.

WESTINGHOUSE ELECTRIC & MFG. CO.
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300hp Westinghouse Motor gear
driving cycloidal blower at Clarkdale
Smelter of the United Verde Copper Co.

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There is No Better on the Market

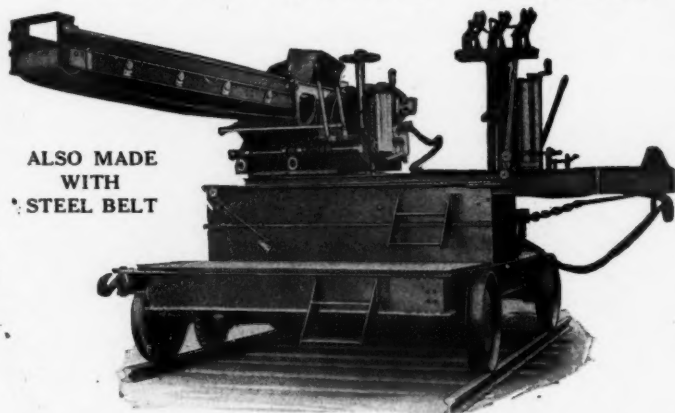
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Our loader will give you satisfaction, also help you increase your tonnage and at the same time greatly reduce your loading costs

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OTTUMWA PORTABLE RUBBER BELT CONVEYOR BOX CAR LOADER

YOU CAN SEE AT A GLANCE

This machine is a wonderful labor saver

JUST THE MACHINE YOU HAVE BEEN LOOKING FOR

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Are You Paying Too Much For Your Workmen's Compensation Insurance?

Industries having a heavy Pay Roll Expenditure can greatly reduce the cost of Compensation Insurance by insuring under the

Excess Compensation Insurance Plan

***This Form of Insurance Appeals Particularly to Operators
of Coal, Iron and Metal Mines***

A high Compensation Insurance Rate usually indicates the possibilities of serious accidents which may injure many employees at one time, thereby requiring a heavy Compensation Payment.

If no Compensation Insurance is carried, the payment of heavy Compensation Claims by the Employers may seriously injure their financial stability. It is such contingencies that make Compensation Insurance a real necessity.

Excess Compensation Insurance

is designed to protect the Employers only in case of serious accidents or disasters.

An agreed amount of each claim is borne by the Employers, the excess being cared for under this insurance contract. Under this plan the cost of Workmen's Compensation Insurance is greatly reduced.

Excess Compensation Insurance Solves the Problem

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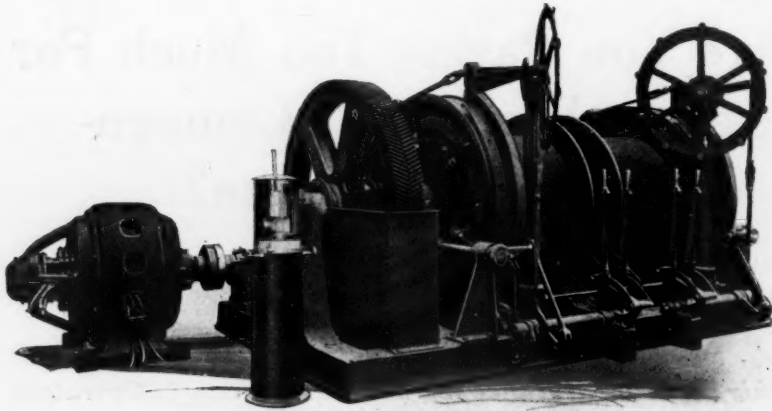
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W-S-M Double Drum High Type Hoist

This illustration shows a W-S-M standard self-contained single reduction hoist. The herringbone gears are completely enclosed and operated in oil. The hoist has flexible coupling ring oiling pinion shaft bearings, dial indicators, hand operated clutches and post brakes. Hoists of this type are made in standard sizes varying from one of 2500 pounds capacity at 300 feet per minute, with a drum of 24 inches diameter and 24 inches face, to one of 6500 pounds capacity at 800 feet per minute, with a drum of 48 inches diameter and 36 inches face.

The Wellman-Seaver-Morgan Co.
Cleveland, Ohio

Comfort is Capital

Work is work; Mining is mining. When you've done everything you can, you can't get away from the discomforts of mining. But—

You **can** give your miners dry clothes to work in—sanitary, well-ventilated street clothes to go home in.

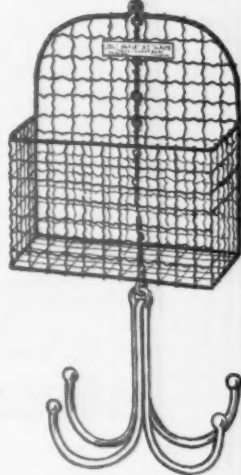
Close, stuffy, musty, ill-smelling clothes-lockers are incubators for disease germs.

Pure air and plenty of it, up at the washhouse ceiling where the air is warmest—an ample basket for the miner's lunch and personal effects—a strong chain and trusty padlock for safety—that's the modern, sanitary way, exactly as the law requires.

Hang your men's clothes **High and Dry** with the **Union Sanitary Clothes Hanger**, cheapest and best.

Our new booklet, "High and Dry," free on request.

JAMES H. CHANNON MFG. COMPANY
227-9 West Erie Street Chicago, Illinois





STEPHENS-ADAMSON MFG. CO. AURORA ILL.



S-A UNIT CARRIER "A WINNER"



They Win Your Confidence

The dependable service characteristic of all Unit Carriers has won for them the everlasting confidence of users.

Freedom from breakdowns, their ease of operation, the low upkeep costs and the power saving—these points should influence every purchaser of belt conveyor equipment to specify S-A UNIT CARRIERS.

Unit Carriers are now recognized by operators in the many fields of industry as the most advanced type of carrier manufactured. The operating expense has been found to be below that of any other carrier on the market. This fact is true primarily because they run without constant lubrication and require only occasional inspection.

The Unit Carrier is of all-steel construction, which speaks for itself of durability.

We earnestly recommend that Unit Carriers be specified on all belt conveyors.

QUOTATIONS ON REQUEST
Stephens-Adamson Mfg. Co.

Aurora, Illinois

Our engineers are glad to demonstrate the economies involved in the use of Unit Carriers.

THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

ANNOUNCEMENT

No one question has commanded more attention of all mining companies during and since the war period than that of Federal taxation. Industries which heretofore have not been called upon to directly contribute to the support of the Federal Government have been obliged to assume very great burdens in this behalf. The mining industry, because of the wasting character of its assets, has been unduly burdened and its tax questions have been complicated by various problems which did not apply to other lines of industry.

The efforts of the American Mining Congress to secure a complete recognition of the principle that net income could not be arrived at until provision had been made for depletion, and the necessity that the assets of every mining company should be physically as valuable at the end of the tax year as they were at the beginning, have been largely successful. Our contention for what was called the doctrine of replacement has been recognized in a broad way, but the direct application of these principles to individual cases has led to great confusion, and the Internal Revenue Department has still many cases arising under the law of 1917 which have not yet been settled. These many problems have been as difficult for the Internal Revenue Department as for the taxpayer, although the necessity upon the taxpayer to present his case in Washington has entailed in many instances enormous expense which should have been avoided.

With the hope that the American Mining Congress can be of further aid in these matters, both to the Internal Revenue Department and to the taxpayer, it has been decided to create a tax division under the direction of a man who has given tax matters thorough and careful consideration, and who will be in position to render assistance to both the Government and taxpayer in accomplishing that which both desire, namely, the assessment of a proper tax in such a way as to enable the Government to collect sufficient money to meet its requirements and to enable the taxpayer to see the justice of this tax, and to effect a settlement promptly and with the least expense possible. This tax division does not propose to act as the direct representative of any taxpayer, but simply to assist the taxpayer's representative in harmonizing differences which may arise and of simplifying the returns as presented to the Internal Revenue Bureau in order that its burdens may be decreased and more prompt settlements of tax matters be effected.

FUEL OIL VS. COAL

Those who marvel at the continual rise in the price of oil overlook entirely the circumstance that oil when used for fuel produces something more than power. Oil may be substituted for coal underneath a boiler, but coal cannot be substituted for oil in the internal combustion engine. Coal will drive a vessel many days across the sea, but oil will send the ship across and back again. Economy

of storage space results in a saving of time; therefore, in greater speed, and speed, while perhaps not always indispensable, is certainly well-nigh indispensable in these hustle-bustle times. In war time a greater cruising radius because of added fuel-carrying capacity is equal to many fleets and many armies.

In peace time the added efficiency of oil-burning engines in the foreign-carrying trade gives a decided advantage. The world trade of the future will be controlled by those nations whose merchant marine is propelled by oil-burning engines, and the Government is to be commended for conducting expensive surveys of new petroleum fields which give promise of profitable development by private enterprise. And it will be well if the price of petroleum is such as to force the use of coal wherever it can be used with equal efficiency.

NOTICE TO I. W. W.

The service bureau of the American Legion in Kansas has posted notices in the wheat sections containing a proclamation from the Legion in the following language:

NOTICE TO I. W. W.

"Any red card I. W. W.'s coming into the wheat belt are directed to the following farmers who belong to the Non-Partisan League, which is fraternally affiliated with the I. W. W., and who doubtless would gladly employ their comrades in the common cause.

(Then follow names and addresses of farmers.)

"I. W. W.'s are not wanted by anyone else, and notice is hereby given that the service bureau, American Legion posts, of this wheat belt will furnish quick transportation if necessary."

The *Non-Partisan Leader*, official publication of the Non-Partisan League, calls this "a brutal insult to law-abiding farmers." Possibly so, but it expresses quite clearly the exact sentiment of the millions who have suffered in past years from the sabotage performed by ruffians who boast of being members of the I. W. W.

A GOOD FIGHT.

Mineral producers who besought Congress to give their industries the protection necessary for existence in post-war conditions left Washington bitterly disappointed at the failure of Congress to recognize the necessity and importance of offering security to these basic parts of our commercial fabric.

When one considers, however, the fate of some other measures for protection which were introduced in Congress this year, the mineral producers can take heart over the record they have made. The good faith and integrity shown in their requests for protection for their industries has not been questioned nor been made the basis of dispute. Their efforts to secure this needed protection have been based on present conditions of the industries and the necessity of these industries to the country at large. On their indefatigability in presenting these facts relative to their various industries to the members of Congress and on the splendid clean record that they have made before the first session of the Sixty-sixth Congress they are to be heartily congratulated. It is a record that will build much toward capping their future efforts for this needed protection with success.

A DIPLOMATIC FAUX PAS

Elsewhere on these pages mention is made of the intelligent clean fight made by the needy branches of the mineral industry for protection for their industries.

Other fights have probably been just as clean, but it must be admitted that they have not been handled so intelligently.

With the nominations of both political parties made, it is a safe and proper time to philosophize on the effect of a certain letter from the head of the publicity department of the Du Pont interests to Senator Moses regarding the dyestuffs tariff and its possible connection with the candidacy of Senator Moses' protege, Leonard Wood. After Senator Moses read this letter on the floor of the Senate there was not a member of that body who dared thereafter vigorously espouse the

dyestuffs tariff. The interesting thing about it is that there was nothing particularly improper in the letter. It contained nothing that could not have been stated in an interview between the two gentlemen without the least impropriety. Yet by the tactical error in handling this delicate situation by correspondence, which formed an imperishable record, the dyestuffs industry brought down on its somewhat undeserving shoulders all the recrimination and extravagantly derogatory adjectives of every demagogue and congenial muck raker in the public press. Unfortunate, indeed, and especially so because it was so entirely unnecessary.

Certain people interested in the dyestuffs tariff made the statement at one time that the mineral industries were trying to get a free ride on the Dyestuffs bill. Inasmuch as this was at no time the case, the mineral industries now have the same feeling that a man has who neglects to buy a ticket on a train that is later wrecked.

BLUE-SKY LAWS

The value of advertising has never been more effectively illustrated than in its relation to blue-sky laws. Among the first of the effective blue-sky laws was that known as the Pardee law, so named after the then Governor Pardee of California, who was chairman of the American Mining Congress committee which recommended the enactment by the various State legislatures of a law which made misrepresentation of any material fact relating to the value of mining stocks offered for sale a misdemeanor punishable by fine and imprisonment. The consummation of the fraud was not essential to the effective operation of this law; the only thing required was evidence that a misrepresentation had been made, and it was not required, as under the laws against false pretense, that someone should be swindled before the penalties were incurred. This law was enacted by a number of States, but was not properly advertised, and therefore did not attract popular attention.

Later the so-called Kansas blue-sky law was enacted, which required any person offering stocks for sale to first secure a State license, before the granting of which a full disclosure of the facts surrounding the offering was required. Various States have enacted laws more or less patterned after the Kansas law. These laws have accomplished much of good and much of harm. The harm grew out of the fact that legitimate oil and metal promotions found it difficult to meet the requirements of the law and still be fair to their stockholders. This difficulty grows from the fact that every mining and oil development in its early stage carries with it a hazard so great that no conservative banker would approve the investment to others, even though he might be willing to invest his own money therein.

All promotions carrying heavy hazard necessarily promise large returns in case of success. It has been stated by the representative of a large development organization that during years of his service for this large corporation only one out of 100 propositions offered were approved for further examination, and that approximately one in 20 of those of which examination was made proved to be valuable enough to induce the purchase of the property by the development syndicate.

This does not prove that the 99 out of the 100 propositions offered were without value, nor does it prove that 19 out of 20 properties examined were valueless. It only proves that this particular organization was unwilling to take over but one of the 20, either because the proposition was not large enough for its operation, or because the price fixed was out of proportion to the actual value disclosed, or that the property did not show sufficient value to justify further expenditures.

Every prospect offered carries something of the above hazard, and no one by any possibility can predict correctly what conditions will be disclosed by development work. Someone must take the risk which is incidental to the development of mining property if the mining

business is to continue. The war has demonstrated that the public welfare is very largely dependent upon mineral production. It is a well-recognized fact that all mines will some day become exhausted. Some copper mines have a life of 40 or 50 years; some coal mines have a life of 20 years; a zinc mine in the Joplin field is usually equipped with a mill with a capacity which will exhaust all the ore within economical hauling distance by two and one-half years of continuous operation. If all development of new mining properties is to be discontinued because no one is willing to undertake the hazard of their development, our presently worked mines will be exhausted in a few years and the nation will be without a supply of minerals. It is therefore vastly important that prospecting shall go on continuously, and from the figures given above it is evident that not to exceed one in ten of the well-chosen prospects will become a large producer of minerals. Any blue-sky law which prevents investment in mining prospects, all of which carry these hazards, is not only a bad law, but it is a law which becomes a public menace. The public is entitled to know the facts about any mining promotion which is offered for investment. Being advised of the facts, any law which prevents the taking of the risk which mining investments necessarily carry does not serve the best interest of the public.

There is need for careful consideration of this subject. Laws should be enacted not to protect the fool against himself, but to make it possible for every investor to know the facts, to be able to measure the hazards undertaken, to require that money contributed for development work shall be spent for development work. With these precautions, any law which practically forbids investment in mine development is necessarily inimical to the public welfare.

HEADS I WIN; TAILS YOU LOSE

While discussing the question of blue-sky laws it is but fair to say that no blue-sky law can protect the public against

some of the alleged investments which are now being offered. For instance, a proposition is now being offered the people of the city of Washington to purchase units in an alleged oil-development enterprise in a Western State. The promoters have secured leases upon a large tract of land, and they propose to sell 1000 units in this enterprise at \$100 per unit, each unit carrying with it the transfer of a lease upon 34 acres of this land. Of the \$100 received, \$2 per acre, or \$68, is to be paid to the promoters who own the lease for a transfer of a half interest in that lease; \$32 of the \$100 paid for each unit is to be paid into a development fund; in other words, the promoters turn in leases of doubtful value and receive therefor in cash \$68,000 and a half interest in the property which the \$32,000 fund is intended to develop.

Inasmuch as leases upon individual blocks of land are sold, and inasmuch as there is no promise except to spend the \$32,000 in development work, it is plain to be seen that the promoters, after paying some commissions and expenses, will net a handsome profit and retain a half interest in any benefit which shall accrue from the expenditure of the \$32,000 in development. This fund is entirely inadequate to the development of an oil supply in wildcat territory. Usually about one well in 50 in unproven territory is successful, and \$32,000 may drill one well, but surely will not drill 50 wells. No blue-sky law with which the writer is familiar would prevent the carrying out of this transaction, and the writer is unfamiliar with any other proposition more likely to lead to loss by the investor. Pitiless publicity, and that alone, can avail to prevent the natural result of this proposal, which can be summed up in the quotation, "Heads I win; tails you lose."

OIL FRAUDS

Indictment of eleven reputable investment houses and fifty-five individuals in connection with alleged frauds in the sale of oil stocks is a healthy sign of the

cleaning up of this particular type of inflation.

The economic waste which has been going on in the promotion of ill-advised and illegitimate oil enterprises is appalling.

Every legitimate oil industry in the country is lending its vigorous support to this fight against the parasites on the industry as a whole.

The large howl that is going up from supposed oil people against the exposes of illegitimate financing on the ground that enterprise and initiative is thus thwarted does not come from people who have bona fide speculative propositions.

The oil promoter who is being discriminated against, and justly so, is the one who makes money whether a well is drilled on his property or not, and whether or not oil is struck on such well if it ever is drilled. The same principle applies whether the venture is a stock company, shares in a syndicate or segregated portions of the great American desert which are sold as acreage by these philanthropists who want "to give the small man a chance to get rich."

THE LESSON OF COAL PRICES

The average price of the nation's total production of bituminous coal for a five-year period ending in 1915 was \$1.11 per ton at the mine, bringing the bituminous coal industry to the verge of bankruptcy. The coal consumers did not appreciate the fact that this production was made at a continuous average loss to the producer. The "coal barons" were regarded with equal aversion by the public when they were furnishing coal at a loss as they now are with coal at \$7 and better per ton. The coal consumer then regarded as outrageous any proposal looking to the withdrawal of those restrictions of the Sherman law which permitted a fair and reasonable co-operation between coal producers. Now that shortage of production or other causes have brought prices to the other extreme, Government confiscation of coal-mining

property and various other drastic and unconstitutional remedies are demanded. During this cheap-coal period a somewhat careful investigation of the situation convinced the writer that the bituminous coal industry as a whole was giving away its coal at an operating loss of 15 cents per ton. If the coal had a royalty value of 10 cents per ton, this meant a net operating loss to the coal industry of \$60,000,000 annually and the giving away of \$40,000,000 of its invested capital.

The public is now paying back a part of this loss. Some, a very few, coal operators are making unfair profits; others will be able to recoup some of the losses of previous years. The penalties for violations of the law of supply and demand are being brought home to the consuming public. The lesson is wholesome and will serve a useful public purpose. He who buys any product at less than cost does so at the expense of someone else. Usually his saving of today will be paid back with compound interest in his next year's purchase. Upon the other hand, an overprice today leads to competition which will wreck next year's prices. The law of supply and demand is a safe regulator.

THE RIGHT TO STRIKE

Whether Samuel Gompers can successfully simulate the Australian bushwhacker in his skillful dodging of the returning boomerang is a question which only time can answer. When Mr. Gompers says "the workers will not sacrifice human progress for an abstraction which is called public welfare," and again states "the public has no rights which are superior to the toiler's right to live and to defend himself against public oppression," then Mr. Gompers has definitely drawn a line of demarcation between himself and the business interests of the United States.

Samuel Gompers is a confessed leader of men. We think that he himself would admit as much. He stands as the oracle

of unionized labor. He would probably not deny this statement. He is a patriot and holds his country first, and we doubt that Mr. Gompers would deny that the American flag has been very frequently referred to as his favorite emblem. He is well aware of the fact that his personal utterances are credited with having some thought back of them and that they are given great weight in the councils of organized labor. In other words, he is aware of the fact that his influence is a force in whatever direction it may please him to impel that force.

Some time ago the American Mining Congress, which has long been in contact with the problems arising between employer and employe, and which has studied the human, the commercial and legal phases of the so-called labor problem, originated and made publication of the following:

"The right to strike is a qualified right, which ceases and becomes a conspiracy against the Government when it interferes with the production and distribution of the necessities of life."

If Mr. Gompers is right, then the principle expressed in the above paragraph is wrong; if Mr. Gompers is correct, the nation can be thrown into commercial stagnation, chaos, financial ruin and revolution at any time he pleases to call a general strike for the purpose of forcing what he may consider "the recognition of just rights" for some individual, the employment or non-employment of whom may have become a question.

If Mr. Gompers is right, then the existing longshoremen strike in New York is a righteous revolution; and the same was true of the coal strike, of the steel strike, and has been true of every other strike. If Mr. Gompers is correct in his premise, then the hundreds of millions of dollars which have been lost to industry and to labor are just and equitable charges against industry and labor; the fireless and foodless homes resulting from the coal strike, the months of idleness and hence hunger and suffering

which have resulted from other strikes are merely a legitimate incident in a normal though troublesome working out of a social problem. If Mr. Gompers is correct, the \$86,000,000 lost thus far in the longshoremen strike in New York, \$12,255,000 of which is actual loss to the wage-earners involved in the strike, is a perfectly satisfactory condition, and the fact that hundreds of merchants have been unable to secure or deliver goods which have been tied up by the strike, that transportation congestion and destruction of perishable freight which has resulted in losses aggregating to more than \$40,000,000 are right and proper conditions which the American people should accept with pleasure, and, further, the American public should find some anticipatory pleasure in looking forward to more of the same sort of experience.

If Mr. Gompers is correct that his expressions are accepted as being the unqualified expression of right and justice, then the 85 per cent. of the unorganized people of the United States should silently accept the consequences; if accepted in the unqualified sense of the term, Mr. Gompers and his associates should some day cause an overturning of this nation with famine and pestilence and death in order that the sacred right to strike in behalf of the alleged wrongs of a group or even of a single man may be established in the United States is a final principle upon which the people of this nation must conduct their necessary business affairs.

Is it not possible that some day the great mass of splendid men who are toiling daily in the shops and mines, upon the transportation lines and upon the docks which cover the shore lines of the nation shall awaken to the absurdity and impossibility of the stand which Mr. Gompers has taken in this discussion, and is it not probable that when the truth is recognized and good sense prevails "the sacred right to strike," which to Mr. Gompers has become an unqualified dictum, will become a boomerang returning with such rapidity that, skillful as he is

in endeavoring to dodge responsibilities, he will be unable to escape the consequences of the avalanche which by his false position and false logic he has loosed upon his own head?

STANDARDIZATION IN MINING EQUIPMENT

Charles A. Mitke, chairman of the Metal Division of the American Mining Congress Committee on Standardization of Mining Methods, has completed a very interesting series of articles, illustrated by charts and drawings, which were published in the *Engineering and Mining Journal* on various dates. These articles have been compiled in book form and issued by the McGraw-Hill Book Co. of New York. There has been some discussion among mining operators in behalf of the equipment and methods in metalliferous mining. Operators, known for their business sagacity and success as managers, have stated recently that to attempt to standardize methods and equipment in metalliferous mining was to attempt the impossible owing to the widely varying conditions to be found in various States and localities. The situation is expressed tersely and convincingly in the preface of Mr. Mitke's book, in which he says:

"Great economies in any business of production result from careful and thoughtful attention to details, and mining is no exception to this rule. On the contrary, successful mining is one of the greatest embodiments of the principle. The difference between the careful manager and the careless one is apt to be the difference between profit and loss."

And it is upon this business principle that the American Mining Congress is just completing the organization of a concrete National Standardization Committee, one section of which is devoted to the problems connected directly with coal production and another section to the problems connected with metalliferous and petroleum mining. We believe the beneficial effects of this movement will be felt for all time by the entire mining industry.

PROTECTING GOLD RESERVES.

Gold is universally recognized as the basis of credit and the only medium which can be used in the settlement of trade balances between the civilized nations of the world. This being true, an adequate supply of gold is essential to every civilized country. The credits of the world have increased many fold since the beginning of the war. The gold reserves of the world have made no perceptible increase during that period. The United States during this period has gained from imports of gold from foreign nations to a point which has enabled it to maintain its currency at par and to maintain a free gold market. In most other countries currency is at a discount and the free transfer of gold is not permitted. The credit of the United States is thus maintained at par because of our adequate gold reserve. Foreign nations to which we hope to sell our goods and with which we hope to maintain active commercial relations are today handicapped in their purchases in our market by a depreciated currency which can only be accepted in payment for our goods at a heavy discount.

The fact that the currency of many nations is now at a discount or, to state it differently, the fact that gold is at a premium in many nations of the world proves conclusively that those nations have not enough gold. We must expect that the demand of these nations for increasing their gold reserves will necessarily deplete our gold reserves if we are to maintain a free gold market, which is a condition most greatly to be desired. Gold will necessarily flow to that point where it is in greatest demand. This movement of gold is made more likely because of the fact that at this time the United States possesses more than its share of the world's gold supply. It is true that deflation of credit is being sought by the financial interests of the country and it is hoped that deflation may be brought about gradually and without disturbance of the financial situation. Assuming that the crisis shall be passed, it

still becomes necessary for this country to maintain a gold reserve which will fully satisfy the public mind that its obligations may at all times be met in the gold payments required by our bonds and our contracts.

It is generally admitted that a healthy gold-mining industry is essential to meet these conditions. This is a national requirement without reference to its effect upon the gold-mining industry. The nation at large is not interested in the success of the gold miner, but it is interested in the production of gold. The nation at large is not interested directly in the success of the wheat growers of the Northwest, but a discontinuance of wheat cultivation in that section, if the shortage thus created were certain to create a famine, would become a matter of very great importance to the nation and the nation must interest itself in those plans by which the wheat growers of Dakota and Montana shall find it profitable to produce that food which the nation needs. A guaranteed price for wheat was for the purpose of protecting the food supply of the nation.

A gold reserve which protects our credit is necessary to the nation and few will be found willing to say that it is not the nation's business to so stimulate gold production as to protect the nation's gold reserves upon which our credit is based and upon which our ability to carry on international trade is predicated.

THE GOLD STANDARD AND THE McFADDEN BILL

The chief objection which is offered by those who oppose the McFadden bill is based upon their belief that its enactment will endanger the gold standard. These men congratulate the country upon having been able to maintain the gold standard while most other nations, except United States and Japan, have found their currency at a discount; these men glory in the proud pre-eminence of the United States because of its ability to maintain the gold standard during the present trying conditions.

In this THE MINING CONGRESS JOURNAL fully agrees with them, but begs to point out that we have been able to maintain the gold standard by virtue of the fact that we have had sufficient gold with which to maintain it. The currency of most European countries has been at a discount because those nations have not enough gold to justify the confidence that they will be able to pay their obligations in gold. It is pointed out by these misguided friends of the gold standard that Great Britain under more difficult conditions has absolutely refused to lend aid to her South African gold miners and has permitted an open gold market in which the depreciation of her paper money could be measured. But they do not go further and state that the miners in South Africa can be paid with this depreciated currency and therefore in effect the gold miners of South Africa are receiving a bounty measured by the depreciation of British currency. In other words, the gold mine operator in South Africa pays his bills in discounted British exchange for which he trades his gold at a premium.

The gold miners of every gold-producing country of the world, except the United States, have this advantage, and the same advantage will come to the gold miners of the United States whenever our currency is at a discount and not before. These opponents of the McFadden bill insist that gold production will increase when we have returned to normal conditions. But is there an authority anywhere who will express even a faint hope that we will within the next few years return to normal conditions? Even though it could be hoped that business would again return to that normal condition—in other words, that low price level which will permit successful gold mining—this could not occur during the next few years without a commercial panic which would depress the values of the country to the tune of billions of dollars.

The American Bankers' Association has twice gone on record favoring such governmental stimulation of the gold-

mining industry as would maintain a normal output and no one can suspect this association of any desire to tamper with the gold standard. To say that an increased price for such gold as is used in the manufacture of jewelry threatens the integrity of the gold standard is to beg the question. The gold standard in the United States can only be maintained by the possession of such a volume of gold as will insure public confidence in the ability of the nation at all times to meet its every obligation. It is admitted that gold will flow from this country to European countries. In many quarters it is believed desirable and in some quarters it is believed to be a necessity, that much of our gold shall be exported to foreign countries in order to establish such credit as will enable these countries to do business with us upon a gold basis. Certainly we cannot maintain the gold standard by exporting our gold reserves and by crushing our gold industry. The flow of gold to the point of greatest demand is essential to the maintenance of a free gold market. Gold will flow to foreign countries and our own replenishment of that stock cannot proceed from abandoned gold mines, no matter what premium may be offered. The destruction of gold mines now going on at a frightful rate spells calamity to the nation which permits it.

LABOR'S POLITICAL MOVEMENT

Some few months ago the American Federation of Labor announced its determination "to apply every legitimate means and all of the power at its command to accomplish the defeat of labor's enemies who aspire for public office, whether they be candidates for President, for Congress, for State Legislatures, or any other office." The Federation further announced that "its political campaigns must begin in the primaries. The record of every aspirant for public office must be thoroughly analyzed, stated in unmistakable language and given the widest possible publicity. Labor's enemies and friends must be definitely known. To

this end the American Federation of Labor has created the national non-partisan campaign committee and has called upon all affiliated and recognized labor organizations to create district and local committees to co-operate with the national committee and co-ordinate their efforts." The determination to show the force of the labor vote against every candidate who does not accept the judgment and bow to the will of the labor organizations is not new. This in a general way has been practiced for many years, but this comprehensive movement in which all those who refuse to wear the color of labor organizations shall be blacklisted is based upon a belief that organized labor is powerful enough to control the Government. It is announced that the committees "now employed in carrying out this declaration of principles are more numerous and efficient than those employed in behalf of any other political movement." It seems proper that there should be a division of those who believe that the country at large is greater than a minority of its citizenship.

The forced enactment of the Clayton bill, exempting labor from the provisions of the Sherman Law, followed by the Adamson bill, which was passed by Congress and approved by the President in grossly indecent haste because of the threat that unless this bill should become law before midnight a strike would be called which would paralyze the industries of the country and deprive the people of the large cities of the necessities of life, and other brazen demands of organized labor have brought forth a number of statesmen who prefer to suffer defeat at the hands of the people than to stultify their conscience and their sense of public responsibility to meet the demands of this organized minority.

Organized labor, through this new non-partisan political committee, proposes to throw its strength to those candidates who agree to submit to its demands, and thus elect sufficient representatives in Congress to control the Government. It will be well for the American people to at once understand this situation. Are

we ready to turn over the control of our National Government to the American Federation of Labor? Are we ready to accept class leadership in the place of national leadership. THE MINING CONGRESS JOURNAL believes that the perpetuity of representative government is threatened by this movement. Organized labor should have in our governmental system a representation based upon its membership. To permit organized labor to have control means that other citizens shall be deprived of their just share in governmental management. THE MINING CONGRESS JOURNAL does not approve the recent act of the New York Legislature in depriving men elected to the Assembly of their seats on account of their membership in a Socialist organization. It believes Socialists as such are entitled to be represented in proportion to their numbers; it does not believe that this country can maintain its present form of government on any other basis than that its officials shall fairly represent the majority of the citizens in the district from which they are selected. Because of its belief in this principle, it condemns the plan by which labor proposes to elect here a Republican, there a Democrat, and perhaps somewhere else a Socialist, each of whom has obligations to other agencies than the party on whose platform he is elected. An understanding of this situation will demonstrate that the present movement of organized labor is a dangerous blunder, wrong in principle, wrong in purpose, and calculated to so solidify the opposition as to temporarily at least deprive labor of that representation to which it may be entitled. There has been altogether too much surrender to the demand of organized labor. Let the issue be well understood, and let us stand unflinchingly against any movement proposing that any minority, good or bad, shall control the Government. Let our representatives be broad, fair-minded men, with the ability to grasp and the courage to execute whatever shall be for the benefit of the nation as a whole.

FINANCIAL REVIEW OF THE MONTH

The promised advancing market following the Republican nomination did not materialize. The month of June as a whole has established one record after another of dullness. It has had the dull-est opening hours, the dull-est half-day sessions, the dull-est full-day sessions, the dull-est week, and finished by being the dull-est month for more than a year. The statistical average of twenty representative industrial stocks has had less than a three-point range of fluctuation during the entire month. Following a heavy campaign of advice to buy and a slight advancing market in the rails during the month of April, the statistical average for twenty rail stocks has dropped to new lows and individual stocks have made new extreme lows following the cut in the dividends on Chicago and Northwestern early in June. All of these indications are discouraging to the speculative trader. They are not particularly discouraging to anyone else.

This has been a month which has called out all of the set phrases in accounting for market fluctuations. Prices would decline, to be followed by the statement that "these slight declines were merely due to short selling and had no significance." Prices would rise with the same number of points with the receipt of news which could not remotely affect the market for a year to come. But these moments have had vital significance. They have signified that the advance of rediscount rates is having its desired effect. For the dull stock market with its small speculative range is exactly the effect desired by the Federal Reserve Bank when it increased its rediscount rates in May, and again in June. For this was done for the purpose of curbing speculative loans and stopping inflation of values, not only in securities but also in commodities. The public has kept out of the market, which at this critical period is a good thing, both for the market and for the public.

There has been a uniformity in these narrow fluctuations which has carried

prices to a high peak on Friday or Saturday of each week and to a low point on the Monday or Wednesday following, which would indicate that certain astute traders had adopted it as a reasonably safe plan to sell the market at the end of the week and buy it in again earlier in the week following.

The present slow movement of freight is due more to inadequate equipment than to freight congestion. To supply cars necessary for the entire crop movement this year will be an utter impossibility. A great deal of last year's grain crop of the West is still unmoved because of inadequate equipment.

In the bank statement for the week ending June 25 New York Federal Reserve Banks' reserve ratio dropped below 40 per cent. to 39.2. This was due entirely to a decrease of gold reserve and points out anew the necessity for stabilizing the gold production on a basis comparable to other industries.

Aside from the stabilizing effect of our Federal Reserve Bank system, there is one further restraining hand which will prevent any recurrence of panic conditions which have prevailed at the end of inflation periods heretofore; that is, the widespread circulation of financial statistics and information based on scientific research from responsible statistical organizations. This comparatively recent statistical service by graphs had no such wide publicity at any former time of similar stress.

Both the speculating and investing public are being and have been forewarned of the exact possible outcome of conditions of inflation to such an extent as to act as a preventive. When more than half of the public trading in the market is being warned that under present conditions stocks cannot have a sustained rise, their influence, together with that of the professional traders who are always preponderantly on the correct side of the market, will have more than a counterbalancing effect as opposed to that part of the public which never speculates unless it buys.

This year has seen the largest volume

of proposed new financing of enterprise that was ever proposed for public investment. Many companies which had made money found themselves short of actual capital for the reason that while their tonnage output had doubled, the capital necessary to handle it had under our present inflation quadrupled. They, therefore, declared cash or stock dividends, usually stock, and at the height of the optimism produced by this additional dividend floated a new issue of capital stock or of preferred stock or bonds. This meant the ultimate investment of twice the usual amount of money for carrying a fixed volume of business.

The issuance of stock dividends themselves was a species of inflation, in that many stock dividends were passed on inventories at inflation valuations and increased the fixed liabilities against the companies' assets.

Judge Gary more than two months ago in his address to the stockholders of the Steel Corporation pointed out the dangers of such financing and the advisability of the more conservative plan, as followed by the Steel Corporation. This company has by maintaining its usual dividends and declaring no extras kept its liquid capital large, and avoided the necessity of new financing at a time when money is costly. The wisdom of his course has been seen by a rapidly increasing number of corporations, and many large financing projects which would not materially have increased the volume of the business of the companies for whom they were to be sold have been withdrawn from the market within the last month.

The issuance of stock dividends which followed the decision of the Supreme Court that such dividends were not taxable as income has also happily been cut down. The country is one long stride further toward its ultimate normal position. The month of June with its heavy withdrawals necessary for July 1st dividends and interest might have been critical for the country as a whole. Instead it was merely stupid for the speculators.

FEDERAL TRADE COMMISSION vs. MINERALS SEPARATION, LTD.

American mining companies with an aggregate production of approximately 60,000,000 tons of ore per annum will be affected by the outcome of the prosecution by the Federal Trade Commission of Minerals Separation, Ltd., Beer, Sondheimer & Company and others, which opened in New York on April 7, 1920.

The magnitude of the proceeding is further emphasized by the array of counsel representing the various parties in the hearings before Hon. George McCorkle, Examiner. The prosecution of the Federal Trade Commission is under the supervision of Hon. Claude R. Porter, chief counsel, and Hon. Gaylord R. Hawkins, trial counsel. The Minerals Separation Companies are represented by ex-Supreme Court Justice Charles E. Hughes, Messrs. Alfred A. Cook, Harold Nathan and Henry D. Williams; Beer, Sondheimer & Company, Inc., is defended by former Commissioner of Corporations Joseph E. Davies, Messrs. Isadore J. Kresel and Raymond W. Beebe, and ex-Secretary of War Lindley M. Garrison is counsel for the respondents, Elkan and Frohnknecht. The American Mining Congress, pursuant to the resolution adopted at its twenty-second Annual Convention, and its counsel, Hon. George L. Nye of Denver and Mr. Gilbert H. Montague of New York, have for several months been collecting evidence and placing it at the disposal of the commission. The record of testimony so far covers over a thousand pages, and the exhibits introduced by the Government cover twice that number. Further hearings will be held in San Francisco in July and at such other times and places as the Federal Trade Commission may deem advisable.

The Government called as its first witness John Ballot, who was chairman of all the British Minerals Separation companies and is now president of Minerals Separation North American Corporation; Seth Gregory, until 1916 resident managing director of the British companies and now vice-president of Minerals Separation North American Corporation; Chester B. Allen, secretary of the North American Corporation, and Otto Frohnknecht vice-president of Beer, Sondheimer & Co., Inc.

Mr. Ballot testified that he is a British subject, born in South Africa, and residing in the United States for several years past.

German Interests in Subsidiaries.

The first of the British companies was Minerals Separation, Ltd., organized in 1903 with a capital of £15,000, to acquire and exploit certain patents for the concentration of ores. These patents did not include the flotation process, however, which, according to Mr. Ballot, was not discovered until 1905, in the company's laboratories. Five years later it was decided to promote the flotation process in America, and accordingly Minerals Separation American Syndicate, Ltd., was organized in London, acquiring the American rights. The German firm of Beer, Sondheimer & Co. of Frankfort, who were large stockholders in this syndicate, were made American agents in 1910, and Dr. Sondheimer was one of its directors.

A few years later, the £52,500 capital of the American Syndicate proving inadequate, Min-

erals Separation American Syndicate (1913), Ltd., was formed with a capital of a quarter million pounds, and acquired the entire business of the 1910 syndicate. Beer, Sondheimer & Co. of Frankfort were large stockholders in this syndicate also, together with Minerals Separation, Ltd., and Lazard Brothers of London.

Beer, Sondheimer & Co. of Frankfort continued as agents of the (1913) syndicate in America, their New York office being in charge of Benno Elkan and Otto Frohnknecht, both German subjects at that time.

War-Time Complications.

When Great Britain declared war on Germany in 1914, Minerals Separation American Syndicate (1913), Ltd., was in the embarrassing position of a British company, a large block of whose stock was owned by a German firm, which was also its American agent. In this predicament the directors sought the advice of counsel and conferred with the British authorities, with the result that an agency

agreement was made with "Elkan and Frohnknecht, doing business as Beer, Sondheimer & Co., American branch," in January, 1915. Both Elkan and Frohnknecht had applied for American citizenship upon the outbreak of the war.

This arrangement continued until August, 1916, when it was decided to simplify American operations by the organization of an American corporation to conduct the business here, Elkan and Frohnknecht becoming "general" instead of "sole" agents, and receiving 17,500 shares of (1913) syndicate stock in commutation of past and future commissions.

Minerals Separation North American Corporation was formed December 7, 1916, under the laws of Maryland, taking over the rights of the (1913) syndicate and the Minerals Separation business formerly conducted by Beer, Sondheimer & Co. Of the voting trust certificates issued, 65,230 went to the Public Trustee of Great Britain, who had seized the interest of Beer, Sondheimer & Co. in the (1913) syndicate, and 35,000 were deposited with the Guaranty Trust Co. of New York in trust for Elkan and Frohnknecht. After the entry of the United States into the war, however, the *Alien Property Custodian* inquired into the ownership of these hundred thousand certificates and confiscated them as German property.

The Four Royalty Rates.

After the schedule of royalty rates of Minerals Separation North American Corporation had been introduced in evidence, showing four methods—percentage, unitage, poundage and flat rate—Mr. Ballot said that intending licensees "were given the option to select whichever form of royalty was most in their favor," and this freedom allowed the licensee in his choice of royalty rates was also emphasized by Dr. Gregory. But when Government counsel asked "Do I understand you to say that it (the royalty schedule) is so framed that any one of the four alternatives that they may elect will, in the long run, eventually pay you about the same amount?" Dr. Gregory answered, "About the same amount, dependent on the amount they benefit. If we save a man a dollar * * * we ought to get something in the neighborhood of, say, ten cents, to satisfy our end, anyhow; and we framed our royalty to suit that."

Rebates and Special Agreements.

While Minerals Separation North American Corporation has now a standard form of license agreement, it was admitted that not all of the licensees operate under it. The corporation stated in its answer to the complainant "on only two occasions were licenses granted on special terms to meet special and unusual conditions," but the questioning by counsel for the commission brought out the fact that there are fifteen large companies op-

erating under special terms. One of these companies holds a standard form of license agreement, but "we merely agreed to leave the license as it was, the license taken up, at a certain rate of royalty. As the royalty was paid and payable, we refunded half of it to the owner. We agreed to meet the owners by rebating half the royalty rate." When asked whether this rebate agreement was written or oral, Mr. Ballot answered, "Probably oral; at most, the exchange of letters, I should say."

The "Absolution" of Infringers.

Mr. Ballot said that their information was that there were 560 mines, operators or individuals in the United States using their process, of which only about 120 were licensees. The tonnage treated by licensees he estimated at 28,000,000 per annum, and that treated by infringers at 28,000,000 to 30,000,000 per annum.

Counsel for Beer, Sondheimer & Co., Inc., referred to the ceremony of settlement by an infringer as "absolution," but counsel for Minerals Separation North American Corporation preferred to speak of "atonement for past misdeeds" and of being "shriven for past misdeeds." The general policy is to grant "absolution" upon payment by the infringer of double the usual royalties during the period of the infringement.

The "Irrelevancy" of Minerals Separation Profits.

When the commission's counsel asked Mr. Ballot the amount of the North American Corporation's gross income, he was met with the vigorous objections of the witness' counsel, who is also a director of the corporation. "Any investigation into the money that we make, I think, is entirely without the scope of the investigation, and entirely without the power and authority, and entirely without the jurisdiction of the commission, and entirely irrelevant and immaterial to this examination." Government counsel pressed the question, and the examiner directed the witness to answer, but he refused to do so on advice of counsel. Under similar circumstances Mr. Ballot refused to disclose the amount of dividends paid in 1918, the amount of its profits for that year, its surplus and undivided profits and the book value of its stock.

"Insured Against a Lawsuit."

Dr. Seth Gregory, a British subject born in Persia and residing in the United States, followed Mr. Ballot as a witness. He, too, has been associated in the Minerals Separation companies since the beginning, and is vice-president of the Minerals Separation North American Corporation.

On the subject of their patents Dr. Gregory had this to say: "We were not prepared to go this far and say that we guaranteed the validity of our patents, because there is no such thing as valid patents." The position of a licensee and an alleged infringer was summed up by his counsel in these words: "So that, assuming that the patent is declared invalid, the licensee pays royalty, and the other man does not." Again, Dr. Gregory said he has told licensees, "If we have a patent, then they (the infringers) will have to pay for it. You have been wise, and you have insured yourself against trouble." "So that," asked the prosecutor, "—, as you said a moment ago, is insured?" "Yes," was the answer. "He is insured against lawsuit?" "Against a lawsuit," Dr. Gregory responded. All of the foregoing came after the introduction in evidence of a letter written by Minerals Separation's patent attorney to alleged infringers in January, 1917, threatening legal proceedings in default of settlement by such alleged infringers.

"Absolutely Robbery—Trespass."

"I will tell you something that I was going to tell you," said Dr. Gregory. "We have been accused of espionage. I just want to give you exactly the position that we took up on that. We had no means of discovering whether Mr. Hyde was using our process or whether he was not using it. * * * So we were compelled to trespass—absolute robbery. Our chief engineer went right into the place by force, and he took some of the stuff and put it into a bottle, and they nearly knocked his head off. They went for him, you know, and were going to arrest him, and I don't know what not, and in the meantime he had posted the bottle, under registered cover, and so on, to our patent lawyers. You have to set a thief to catch a thief, don't you know. That act of trespass did not in any way militate against us. We have had occasion, and unless we are ordered to the contrary we may have occasion to employ men who will use their ingenuity and skill to get into places and find out what people are doing. We have to use all the modern methods that everybody uses as detectives."

Here Mr. Ballot was recalled to give further details on the subject. "Herbert Salinger," he said, "was known to me as a metallurgist or mining engineer who in former years represented or acted as an agent for Beer, Sondheimer & Co. It would be very desirable to have direct testimony of infringement as to what was going on in the mills of Butte and Superior. Mr. Salinger was asked whether, with his experience, he could engage men or a man of experience and get the necessary information. He said he could, or thought he could, and that man was engaged at a regular

salary and proceeded to Butte, and there entered the service of the Butte & Superior Company, and got the information, which was sent to the New York office." Reports of these "observers," and correspondence with Mr. Salinger, who referred to his own "un-ethical means," were introduced in evidence.* Later Mr. Frohnknecht testified that Mr. Salinger represented both Beer, Sondheimer & Co. and Beer, Sondheimer & Co., Inc.

"To Prevent Crooks From Overreaching."

"We had," said Dr. Gregory, "two difficult propositions to explain to a licensee. The first was our schedule of royalties, and the next was our license contract. Our contract is simple. It is designed to prevent, if I may use the word, crooks from overreaching themselves, but with the honest man our contract had absolutely no fears. We had certain things that we had to put in it for our protection. The first thing I had to meet was this: 'Here is a license agreement here, but there is no termination in this license agreement. It might continue until doomsday.' This point Dr. Gregory explained by saying that "this was merely an option, and if you used the process you paid, and if you did not use the process you were as good as not having a contract at all; there was no obligation of any kind." So that the agreement terminates when they cease to use the process, and "commences again when they start to use it."

Control All Improvements.

As to the use of Minerals Separation apparatus, Dr. Gregory said: "As a protection to ourselves we put in this clause, that when you are going to use our process, you must use our apparatus." Clause 3 of the agreement was read: "The licensees shall, during the continuance of this license, promptly communicate and explain to the licensors every invention or discovery made or used by them which may be an improvement, modification or addition to any of the inventions specified in the letters-patent within the license." Such inventions of their own, licensees may "use free of charge," but "the licensors shall be entitled to the full benefit of, and if obtainable, to obtain letters patent for any such improvement." The licensees further are bound to "use their good offices to induce their employees to assign to the licensor" any such invention.

Claim to Be Benefactors.

The result of the system, according to the witness, "is no monopoly for anybody"; for if the employee of a licensee in America, England, Australia or Russia makes an invention, all "our licensees get the benefit of it, and do not

pay us anything for it. In fact, we wanted to make ourselves a sort of exchange whereby all our clients would get the benefit of the inventions mutually without any extra expense."

"Innocuous" Publications Permitted.

The attitude of Minerals Separation on the publication of articles on flotation was discussed, and Dr. Gregory remarked that "we consider it wise, especially when our patent position is in such a dangerous position, not to allow half-cooked and half-baked statements to come out." And further, that "I would say that it was an absolute dereliction of duty on my part if I allowed an employee of ours to go and ruin the prospect of a company just because he wanted to air his views." So, if an employee desires to publish an article, it must be submitted to the officers. "We have had requests, which we have more often refused," but "where we have been able to satisfy ourselves that it would be innocuous, we have allowed it."

As to articles by their licensees, Minerals Separation North American Corporation also "reserve the right to edit anything they may wish to publish on the subject of flotation."

Benno Elkan and Otto Frohneknicht.

Otto Frohneknicht was the first witness not an officer of Minerals Separation to testify. He said that he and Benno Elkan were natives of Frankfurt, Germany, where they were both employed by Beer, Sondheimer & Co. until 1906. In that year they were sent to New York to conduct the New York branch of Beer, Sondheimer & Co., and they have resided in the United States since that time. Mr. Frohneknicht remained a German subject until his country went to war in August, 1914, at which time he took out his first papers in the United States.

Mr. Frohneknicht said that Beer, Sondheimer & Co. became American agents for Minerals Separation American Syndicate, Ltd., in 1911, and for Minerals Separation American Syndicate (1913), Ltd., in 1913, and, while he and Mr. Elkan had much to do in the negotiations which resulted in these contracts, the contracts themselves were nevertheless executed by their employers, Beer, Sondheimer & Co., in Frankfurt. As counsel for Mr. Frohneknicht put it, "they were simply the agents of the German principals here; it was the business of the Germans, without any question."

Alien Property Custodian Seized Stock.

Mr. Frohneknicht recited the various steps in the creation of the Minerals Separation agency, the receipt of 17,500 shares of (1913) Syndicate stock by him and Mr. Elkan, and the allotment to each of them of 17,500 voting trust certificates of Minerals Separation North American Corporation, which were later seized by the Alien Property Custodian.

Upon the formation of Beer, Sondheimer & Co., Inc., in 1915, all the business of Beer, Sondheimer & Co. was taken over by that corporation, with the exception of the Minerals Separation business. Elkan and Frohneknicht became and are now "general agents" of Minerals Separation North American Corporation, and they also became at that time and are now president and vice-president, respectively, of Beer, Sondheimer & Co., Inc. Minerals Separation North American Corporation and Beer, Sondheimer & Co., Inc., have adjoining offices at 61 Broadway, New York, and part of the former's space is rented from Beer, Sondheimer & Co., Inc. The president and vice-president of the latter each owned a large block of Minerals Separation North American Corporation voting trust certificates, which was seized by the Alien Property Custodian as German-owned. Despite these various arrangements, the witnesses disclaimed any present working agreement of their corporation with Beer, Sondheimer & Co., Inc.

On April 16 the hearings were adjourned, to afford the counsel of the Federal Trade Commission opportunity to examine the evidence and testimony, as well as the respondent's records.

*Among the correspondence introduced in evidence is the following letter, with notations by the Chief Engineer of Minerals Separation North American Corporation:

HERBERT SALINGER,
Special Representative
BEER, SONDSHEIMER & CO., INC.,
New York City.
305-306 Newhouse Building,
Salt Lake City.

January 10, 1918.

Mr. John Ballot,
Care Mr. E. H. Nutter,
San Francisco, Cal.:

Dear Mr. Ballot—I just want to inform you that I have secured by devious and most unethical means a sample of X Cake, which I am sending by registered mail to Mr. Higgins today.

I was not able to find out how the material was used, but am trying to get this information also. The sample obtained weighs about one pound, and I am trying to get some more. It smells as though it contained a good deal of camphor.

Very truly yours,
(Signed) HERBERT SALINGER.

January 12, 1918.

Dear Mr. Ballot—Salinger wired me I could open this letter, so I did. As camphor oil is a splendid flotation agent, it occurs to me that X Cake may be a residue or other by-product from the synthetic manufacture of camphor.

E. H. NUTTER.

* * *

HEARINGS RESUMED

The calling of a former Federal Trade Commission examiner to the witness stand to inquire into his present relations with the Minerals Separation interests, his admission of visits, since the commencement of the hearings, to the offices of both Minerals Separation North American Corporation and A. A. Cook, its counsel, and statements by the Government prosecutor contradicting the witness, featured the resumed hearings of this case in New York on May 3.

Visits Unexplained.

After the introduction of numerous exhibits in evidence on May 3 and 4, Gaylord R. Hawkins, the Government prosecutor, upon completing a further examination of the president of Minerals Separation North American Corporation, called to the witness stand Henry I. Foster, who was one of the Commission's original investigators of the Minerals Separation companies. Foster left the Commission April 14, but has been a regular attendant at the hearings since then, "at nobody's request," he said, but "merely as a visitor." The prosecutor's questions brought out admissions of visits by the witness to the Minerals Separation North American Corporation offices, as well as to the office of its attorney, but these visits "were not in connection with this case," according to the witness.

Foster denied that he was now employed by the North American Corporation or its counsel, but the prosecutor said:

"When called upon by the attorney in charge of the New York office (of Federal Trade Commission) and by other attorneys in the office for an explanation as to what he (Foster) was doing in this case, he (Foster) made the statement before several of them that he had been employed by you (Cook) to assist in the defense of the case. He made that statement on more than one occasion."

A \$14,000,000 Income?

Mr. Hawkins asked the witness if he had not said that the income of the North American Corporation for the last year had been \$14,000,000. This question brought objection from counsel of the North American Corporation, as had all previous inquiries into the financial affairs of his clients: "I object to that as incompetent, irrelevant and immaterial hearsay of the most objectionable kind or character." The question was allowed, and Foster denied making such a statement. "He said it, all right," commented the prosecutor.

Upon the completion of the Government's examination Mr. Cook was given the usual opportunity to cross-examine, but he had nothing to ask the witness, and the purpose of Foster's visits was left unexplained.

The Commission's Private Files.

"If there is any doubt about it in your mind, I suggest that the Examiner and Mr. Hawkins examine the records at the office of the Federal Trade Commission to ascertain" certain matters connected with the case. This suggestion of Mr. Cook's, referring as it did to the confidential records of the Commission, caused the prosecutor to call him as a witness for an explanation.

"What information have you, Mr. Cook, regarding the records of the Federal Trade Commission?" asked the prosecutor. "I have never seen them," replied Cook. This answer caused Mr. Hawkins to probe further, "Have you received any information, directly or indirectly, from anyone as regards what these records and files of the Federal Trade Commission contain with respect to this case?" To this Cook answered, "I have received no information from anyone connected with the Federal Trade Commission as to what the records contain. I have no recollection of having been told by anybody what the records contain." Witness explained that his remark to the examiner had been based on inferences he had drawn from circumstances surrounding the case.

Mr. Cook, while he did not reveal the subject-matter of Foster's visits to his and to North American Corporation's offices, flatly denied the employment of Foster by him or his client.

Those Royalty Rates Again.

A letter written by John Ballot, president of North American Corporation to his counsel in 1918 was introduced in evidence by the respondents, and it refers, among other things, to the "enormous benefits derived from the unlicensed use of our process," and to "the enormous profits derived by them from the illegal use of our patents." Such profits, of course, being made by alleged infringers, were not reduced by the payment of the royalties exacted by North American Corporation. Some correspondence introduced by the Government is enlightening on this subject.

"We should like to make arrangements with your company to use the Minerals Separation Co.'s process if it can be done on the basis of the flotation concentrates produced."

was read from a letter from a prospective licensee. This was answered by North American Corporation, quoting its royalty rates. The prospective licensee was prompt in his reply, "A license to use your process under the terms stated would be of no value to us. If a more favorable basis for royalties cannot be had, we shall be obliged to discontinue consideration of your process." And later, *"A royalty on the mill heads would amount to more than the net value of the concentrates produced. If you could give us a reasonable royalty based upon the flotation concentrates produced, we would be willing to contract with you."* The last word from this prospective licensee is brief but pointed: "The experiments were discontinued about the first of the year, and since the apparatus has been dismantled and removed from the building."

Another company which has been experimenting with the process, assisted by a North American Corporation engineer, wrote as follows:

"The situation is that, as it is at present operated, the plant is not successful in any large way, and if we were to continue with our present indifferent results and were to pay your royalty in addition, we might almost as well suspend operation."

Double Royalties on Experiments.

Discussing the subject of the demand of North American for double royalties on material treated during the experimental period, as "the unlicensed use of flotation," the company wrote:

"Your proposal acceptable, except for the demand for past royalty. This work has been so unsuccessful to date that I wish you would waive this claim or make it subject to the complete success of the experimental work now proposed."

The chief engineer then took the matter up with the president, and advised the company of a lump sum that would be acceptable in full settlement. This "very large figure for settlement appalled" the company (which had already been licensed), and the company's representative wrote:

"Had I known or realized that that accrued penalty was to hang over the head of the company, I should have dropped the matter where it was rather than go into the experimental work proposed with the outcome in doubt; and in that telegram I said that any such back royalties would be contingent upon highly favorable results. The Malmros work and the expenses incident thereto ran to a large figure, and the results were not gratifying, and certainly in no degree commensurate with what I hoped we might get by rea-

son of your laboratory tests, which indicated the possibility of trace tailings. * * * We then tried faithfully, under Mr. Malmros (the Minerals Separation engineer) to make a success. Our outlay direct for his per diem and expense was \$650; the collateral expense was at least \$200 in addition. Had you refused point blank to waive past royalties, almost certainly we would have saved these charges and dropped the work. As it was, we went ahead and paid for work the successful outcome of which was a matter of common interest.

"A point that hurts me is that you reported tailings assays of trace and 20 cents (notation above), and this possibly led me on. Yet when I put up these figures to Mr. Malmros as a goal, he discounted them as mere laboratory results not to be attained in practice. I had relied on them."

Admit Royalties Too High.

In a letter to Minerals Separation North American Corporation, E. H. Nutter, the company's chief engineer, discussed the subject of royalty rates with refreshing frankness. "I know your views on the royalty question," he said, "but here is a case where, if we charge them an all-round royalty on all of their operations, using flotation of, say, 10 cents a ton or a royalty that would amount to this charge, it is, I think, all the traffic should bear. I am becoming more and more convinced that our royalties are too high, and am getting together data which I think will show that we are losing out financially through charging a royalty which is considered too high." And further, "The only argument that I can see," continued Mr. Nutter, "is that by maintaining our present position we can hold the Butte & Superior Company up for more than we otherwise might, but this, again, is not certain in my mind, as I understand the law is very definite that all of the profits of infringement belong to the patent owner, and that our scale of royalties to infringers will not be considered."

"The Royalty Would Take All."

In the same letter Mr. Nutter discussed the experiments of United States Smelting, Refining & Mining Exploration Co. with flotation at various mines. He reported that at Pachuca "they figured that they could make about \$14,000 a month operating profit from the use of flotation, not counting royalty, but out of this they would have to amortize their smelting plant and the changing over to flotation. The royalty would take all of this, and they would not make any profit at all from the change;

and he stated that they had stopped all investigations of flotation on this ore after receiving our royalty schedule." At Needles only one-sixteenth of their products was obtained by flotation, and "at normal metal prices their profit would not amount to the royalty we are asking of them and they would scrap their whole plant there."

"Avaricious and Unscrupulous" American Mining Interests.

Just why the North American Corporation was formed and what interests controlled it were disclosed in correspondence introduced by the Government between (1913) Ltd. and British Treasury officials in 1916. One paragraph reads as follows:

"The profit-earning capacity of the company is very great, and every effort should be made to develop it to its full extent and to preserve the process for its British shareholders. The company's position at present is that it has to defend its extremely valuable property against the assaults of the larger portion of the powerful American mining interests, whose avarice will not permit any scruples to stand in their way if by any chance they can crush the company, in spite of the enormous profits they are making or will continue to make even after paying the moderate royalty demanded. * * * By transferring the company to America on the lines proposed, the shares would still continue to belong to and be held by exactly the same shareholders now on the British register, and in exactly the same proportion, except that 7 per cent. of the whole share capital will be contributed by shareholders and used to cancel or commute the payment to the agents of 10 per cent. of the gross income, as fully explained above and in the agreement of August 4, 1916."

That the process has been "preserved to its British shareholders" was confirmed by an inspection of the shareholders' list of North American introduced in evidence. Except for the several alien stockholders residing in the United States and stock held by the Alien Property Custodian, there were but five American addresses out of some two hundred, all the rest being foreign, and these own but 10,500 of the 500,000 shares.

Minerals Separation's View of American Justice.

"In one notable instance, at the hearing by the San Francisco Appeal Court of an appeal against the company, the opposing counsel actually told the Court that the company was a foreign corporation, and alleged that it was trying to exact a tribute from the United States mining indus-

try 'equal to the national debt.' The Court, no doubt influenced by this consideration, decided against the British company, but that decision has since been called up for revision by the Supreme Court in Washington, hence the need for expediting the transfer to American registration to assist as far as possible in counteracting any prejudices which may exist or be insinuated against the British company at the final hearing of this and two other important actions pending at present before the Federal Courts of the United States." * * * "If the transfer of the English company to America is not soon allowed, the existing hostility in America against the company will not only increase, but, as has already occurred, may again be used to prejudice the company's cause in the three actions at present before the Federal Courts of the United States."

The hearings in New York adjourned on May 5. They will be resumed in San Francisco on July 6.

Much Placer Gold Unreclaimed

The total placer gold produced in Alaska has a value of \$218,000,000. Much of this has been won from the rich bonanza deposits whose exploitation requires little capital. It is not impossible that other rich placers will be found, but the only certain reserves of placer gold are in the extensive deposits of auriferous gravels containing comparatively small gold values. These must be exploited by mechanical methods involving large investments. Including in the reserves only the auriferous gravels, of which some test has been made and which are believed to carry enough gold to warrant exploitation under pre-war economic conditions, the Geological Survey estimates that the Alaska placer gold reserves have a value of between \$240,000,000 and \$360,000,000.

W. P. Pressinger Dies

WHITFIELD P. PRESSINGER, New York, vice-president Chicago Pneumatic Tool Co., died June 10 as a result of complications following an operation. Mr. Pressinger was actively engaged in the pneumatic tool and allied machinery industry for many years. He was general manager of the Clayton Air Compressor Co. for seven years and became widely known through numerous activities in the American Society of Mechanical Engineers and the Compressed Air Society. He was born in New York City in 1871. In addition to the foregoing societies, he was a member of the Sons of the Revolution, Seventh New York Regiment Veterans, F. and A. M., and the following clubs of New York City: Engineers, Lawyers, New York Athletic, New York Railroad, Columbia Yacht and the Machinery Club.

STANDARDIZATION OF MINING EQUIPMENT

By WARREN R. ROBERTS, President, Roberts & Schaffer Company, Chicago; Chairman of General Committee on Standardization of Mining Equipment, American Mining Congress, Washington, D. C.

The subject of "Standardization" of equipment and machinery, whether for use by the coal mining industry, for metal mining, or for any other industry is one which must be given careful consideration before its advantages will appeal to those who are to use this equipment and machinery or to those who are to design and manufacture it.

This statement is based on a very considerable experience by the writer for the past two years, during which time he has had occasion to present the subject to various groups of men representing the different branches of the industry to which the equipment or machinery was to be applied.

When the desirability of standardization of any equipment is first mentioned to one who has not yet thought of the matter, it is perfectly natural that certain objections to any attempt to standardize the equipment in which he is interested, should first present themselves and only by a careful discussion of the subject and the pointing out of the definite benefits to be derived from standardization, will he be convinced that the advantages to be gained by standardization of any line of equipment very greatly outweighs any objections to such standardization.

This statement is also on the experience of the writer, and may be accepted by the gentlemen of this convention, pending the arguments in favor of the standardization, which will be presented later. It will be best, however, to first define both the scope and the limitations which any program on standardization should embrace.

It has been found advisable in planning for the standardization of equipment or machinery for any particular industry to establish certain general lines of procedure and to begin with the adoption of certain principles which are recognized by both the profession and the industry as good, standard practice. Then, having established these fundamental principles and standard practices, we can gradually branch out and bring under standardization certain equipment on which there is the most general, favorable opinion towards standardization.

To illustrate what we have in mind, it is conceded by all concerned that in designing a tippie for a mining plant, for instance, there are certain track clearances, certain overhead clearances, certain clearances above the point of dump for over-wind, etc., which are recognized as good practice and for the safety of operation. However, we have all observed many plants in which these well-recognized standards are not followed, and due to the violation of which many accidents occur. It would, therefore, seem to us easy to reach an agreement as to the desirability of the adoption of certain standards along these par-

ticular lines, such standards, of course, to follow established good practice.

We believe there are few connected with this industry who would not agree to the desirability of some reasonable standardization of mine track gauges. At present we have gauges varying by inches from 18-inch up to 48 inches.

Without doubt some standardization of mine track gauges would be of great benefit both to the operator and the manufacturer, as affecting mine cars, mine locomotives and coal-cutting machines.

To one who has given much thought to this subject, such illustrations could be multiplied indefinitely. These few plainly show the scope which our program of standardization may assume.

Now, to define the limitations: It is important both on behalf of the operator and the manufacturer that attempts should not be made to standardize any machinery or equipment just for the sake of standardization which will in any way add expense either to the operation or the manufacture of such machinery, but only when standardization will simplify operation and cheapen production.

Having in mind these well-established lines of standardization, let us now point out very briefly some of the benefits to accrue to the various interested parties:

BENEFITS TO OPERATOR.

Any program of standardization must have in mind first the benefits to accrue to those operating the equipment or machinery to be standardized. Some of these benefits which occur to the writer are as follows:

The adoption of standards of clearance in the tippie structure as mentioned above would not only facilitate operation, but lessen expensive accidents and thereby prevent delays to operation and expensive repairs.

Standardization of mine track gauges after once adopted would not only facilitate the use of cars from one mine to another (a very material advantage to an operator owning several mines), but would reduce the cost of his mine cars, his haulage motors and his coal-cutting machines.

The standardization of certain other lines of machinery used by all operators would in time reduce the cost to the purchaser for such standardized machinery.

Standardization of any line of machinery very greatly reduces the cost of the repair parts which an operator must carry in stock to insure the continuous operation of his mine.

Standardization of the equipment and machinery for a mine not only reduces its cost, but lessens the time required to secure such standardized equipment and machinery as

against the time required to buy unstandardized machinery.

BENEFITS TO MANUFACTURER.

The next most interested party in any scheme of standardization is the manufacturer of the equipment or machinery to be standardized, and before such manufacturer can be persuaded to join a standardization movement he must be shown the benefits that will accrue to him. These may be enumerated briefly as follows:

All that has been said regarding the benefits to the operator by the standardization of mine-track gauges would apply equally to the manufacturer of mine cars, mine locomotives and coal-cutting machines, or any other mine equipment which must run on a mine track.

It is perfectly apparent that a standardization of mine-track gauges which would enable manufacturers of all such equipment to adopt standards would very greatly reduce the cost to the manufacturer in maintaining plans, patterns and shop room for handling through his factory machines for a few standard gauges, as compared with a multitude of machines of various gauges.

The very large saving in the cost of manufacture of machinery to a few standards as against miscellaneous sizes cannot be calculated. But any manufacturer will admit that the saving is very material and very beneficial from his viewpoint.

The advantage of standards to the operator in reducing the number of repair parts which must be carried to insure the continuous operation of his mines applies equally to the manufacturer, for the reason that to enable him to furnish repair parts for a multitude of sizes of any lines of machinery necessitates his having patterns for all such sizes, and manufacturing and shipping of a few of each of these various sizes instead of a greater number of the few standard sizes.

These are only a few of the advantages to the manufacturer which have occurred to me at this moment, but many others could be mentioned.

ENGINEER AND BUILDER.

It may appear at first thought that any program of standardization of mine equipment and machinery would be a disadvantage rather than an advantage to the engineering profession interested in the designing and building of mining plants. However, such conclusion is incorrect. Any engineering profession worthy to endure must be based on advantageous service rendered to those who pay for such service. Only by making such service of value will it continue to be employed. It is, therefore, to the interest of engineers and builders of mining plants to promote standardization as outlined above, and thereby indicate to operators not only their desire, but their ability to promote his interests by every opportunity that presents itself.

CO-OPERATIVE PROGRAM.

The above discussion makes it apparent that if any movement looking to the standardization of mining equipment is to be successful, it must have the hearty support of men representing the operating end of the mining industry, of men representing manufacturers of equipment and machinery used by the industry and of engineers and builders interested in this line of work.

There are also several other outside interests which must be consulted and whose co-operation should be secured in connection with the adoption of standards that affect such interests. This applies to the interest railroads may have in tippie clearances or other features of a mining plant as affecting the operation of their roads.

Certain States also have laws regulating tippie clearances, some of which laws are unnecessarily severe and should be revised to meet good standard practice. Other States which have no such laws should be encouraged to pass laws establishing the standard practice for such clearances.

MANY SUBJECTS COVERED BY BUREAU OF MINES REPORTS

Reports of investigations of the Bureau of Mines for May, 1920, cover the following:

I. Evaporation of Crude Oil in the Mid-Continent Field, J. H. Wiggins.

II. Notes on Spontaneous Explosions of Nitro-Glycerin in Oil and Gas Wells, Stephens, Palo Pinto and Young Counties, North Texas, R. E. Collom.

III. Recent Articles on Petroleum and Allied Substances, E. H. Burroughs.

IV. The Natural Hydro-Carbons, Gilsonite, Elaterite, Wurtzilite, Grahamite, Ozokerite and Others, Raymond B. Ladoo.

V. Collection and Examination of Rock Dust in Mine Air, W. A. Selvig, F. D. Osgood and A. C. Fieldner.

VI. Safe Use of Alternating-current Type of Coal-cutting Equipment, L. C. Ilsley and E. J. Gleim.

VII. The Relative Safety of Brass, Copper and Steel Gauzes for Use in Miners' Flame Safety Lamps, L. C. Isley and A. B. Hooker.

VIII. Notes on the Magnesium Industry in the United States, W. C. Phalen.

IX. A Fatal Blasting Accident, Oliver Bowles and J. E. Crawshaw.

X. The Uses of Talc and Soapstone, Raymond B. Ladoo.

XI. Sulphur Dioxide as a Factor in the Smoke Problem of Salt Lake City, G. St. John Perrott.

XII. Dutch Guiana's Bauxite Ordinance, J. W. Thompson.



Under this heading THE MINING CONGRESS JOURNAL will hereafter carry a concise review of various orders, opinions and reports affecting freight rates throughout the country issued by the Interstate Commerce Commission and the Railroad Administration or any organization that may be made by law to succeed in any way to the functions of these two departments. The purpose is to get before our members the principal government mandates which affect our commodities, with a view to eliciting inquiries. It is not practicable to include much detail, but we are so equipped that we can give, upon inquiry, a full and complete analysis of any of the traffic problems which are brought to our attention. We hope that this chapter will be of interest and that you will advise us of your problems in order that we may give to each one the personal and complete attention which it cannot have in a review of this character.

General Notices.

Rate Advances.—The Commission has just concluded a very lengthy inquiry into what rates will be necessary to give the carriers of the country the amounts guaranteed to them by the Transportation Act, 1920. Various witnesses from all over the country have been heard, and a very large record is now before the Commission for its determination. The new rates will take effect September 1, when the Government guaranty expires, and it is generally thought that the Commission will hand down its decision during the month of July in order that ample time may be made for compilation and distribution of the tariffs. The Commission must determine just how much of an increase it will allow in each of the three great territories and whether freight traffic shall bear it all or not. It must also determine whether any of the numerous commodities are entitled to special treatment.

Earnings.—The latest figures available show that the net railway operating income for the first four months of this year is \$55,050,637, compared with \$51,575,726 for the first four months of last year. The figures for this year are not complete, owing to the fact that some reports have not been received by the Commission as yet.

Car Service.—The Commission has been quite active during the past month with car-service matters. The carriers were informed in somewhat definite language that the car-service orders of the Commission must be complied with. Arrangements have been perfected for the complete pooling of all lake coal shipments for the current season, and Service Order No. 5 has been issued, giving preference and priority to coal consigned to H. M. Griggs, manager of the Ore and Coal Exchange, at any Lake Erie port for transshipment by water as a part of a pool or pools of lake cargo or bunkerage coal at any such port. An embargo has been entered against all other coal except under permits issued by Mr. Griggs. The Car Service Commission of the American Railroad Association has issued general instructions to all carriers protecting open-top equipment and confining its use, as far as possible, to the movement of coal. Service Order No. 6 requires carriers to give preference and priority to bituminous coal moving to any tide-water coal transshipment pier at or north of Charleston for coastwise movement to a point in the United States, and also preference in supply of cars for such lading and in the movement thereof. This coal must be consigned to a pool or pools of bituminous coal at the transshipment port and preference and priority must be accorded to it in placement of cars and vessels and in dumping the coal. Service Order No. 7 requires carriers for a period of 30 days to give preference to coal in the use of open-top cars suitable for loading and transporting coal, with the proviso that such cars may be used in service moving in the direction of the empty movement, but not to points materially out of line or beyond the mine or mines to be supplied. Neither of the above orders contemplates any change in the rules governing the ratings of mines and

and distribution of cars when the available supply is less than 100 per cent.

Confiscation.—The Commission has notified all railroads that they should refrain from confiscating coal consigned to common carriers and to other public utilities.

Demurrage.—The Treasury Department has revised its regulations regarding war taxes, and holds that demurrage is a charge and a penalty imposed by a railroad company for the detention of its cars and the occupation of its tracks beyond a reasonable time after the arrival of the goods. It is not a part of the transportation and is not subject to tax. It is understood that claims can be filed for refund of taxes collected contrary to this rule.

Decisions of the Interstate Commerce Commission.

Coal.—The Commission has refused to find that the rate to St. Louis on coal, which is 20 cents over East St. Louis, is improper because it is held that the short-haul rate to East St. Louis is not sufficient to absorb the differential. In a case brought by the E. I. DuPont de Nemours Company the Commission holds that change of destination in transit of certain cars of coal on orders of the Fuel Administration constitutes a diversion, and it has awarded reparation because defendants' diversion rule excluding bituminous coal in hopper or self-clearing cars of defined ownership is unreasonable. In a case of the Lukens Steel Co. the rates on bituminous coal, in carloads, from points in West Virginia to Coatesville, Pa., are found not unreasonable. Reparation has been awarded the Cotton Manufacturers' Association of South Carolina for unreasonable rates on coal from Appalachia and Dante districts in Virginia to Spartanburg and other points in South Carolina. A complaint of the National Supply Co. has been dismissed, with a finding that the rates on anthracite coal from points in Pennsylvania to destinations in Iowa, Kansas, Missouri and Nebraska are not unreasonable or unduly prejudicial.

Petroleum.—In the case of Wadhams Oil Co. the rates on refined petroleum products from points in Kansas and Oklahoma to Milwaukee and Racine are found unjust and unreasonable, to the extent that they exceed by more than 3 cents per 100 pounds the rates on like traffic from the same points to Chicago. Rates on heavy oils are found unreasonable to the extent that they exceed 5 cents less than the rates on refined oils. In a case of the Gulf Refining Co. the rates on fuel oil from Bergen Junction, N. J., to Schenectady, N. Y., during the spring and summer of 1917, are found unreasonable to the extent they exceed 11.6 cents per 100 pounds, and reparation is awarded. National Refining Co. is given reparation for unreasonable rates on

petroleum and its products from Coffeyville, Kan., to Healdton, Okla.

Ores.—In a case brought by the Anaconda Copper Mining Co. the Commission finds not to be unreasonable and unjustly discriminatory various rates on smelter products from points of origin in the West to points of destination in the East. From points in Washington and Idaho the rates are found to be unduly prejudicial, and from points in Arizona and Texas to Galveston they are found unreasonable. The defendants' failure to establish refining-in-transit arrangement at Baltimore is held not to be unreasonable. Reparation is denied. Rates on copper bullion from points in Arizona to New York are not found to be unreasonable in a case brought by the Phelps Dodge Corporation, and rates on copper bullion from points in Arizona to Galveston are found unreasonable in the same proceeding.

Tentative Reports

Docket No. 10741—Cedar Rapids Gas Co. v. Director-General, as agent, Chicago, Rock Island & Pacific Railway Co. et al.

A tentative report in this case has been proposed by Attorney-Examiner Charles F. Gerry, the syllabus of which is as follows:

"Rates for the transportation of bituminous coal, carloads, from Jenkins and McRoberts, Ky., to Cedar Rapids, Iowa, found to have been and to be unreasonable to the extent indicated in the report. Reparation awarded."

Docket No. 11232—Lodwick-White Coal Co. et al. v. Director-General, Chicago, Burlington & Quincy R. R. Co. et al.

A tentative report in this case has been proposed by Examiner Thomas M. Woodward, the syllabus of which is as follows:

"Present adjustment of rates on coal from complainants' mines on the line of the Iowa Southern Utilities Co. to St. Joseph and Kansas City, Mo., and Atchison, Leavenworth and Kansas City, Kan., and to points in Missouri intermediate to the Missouri River, found to subject complainants' mines to undue prejudice and disadvantage and unduly to prefer mines of its competitors located at or in the vicinity of Centerville and Trask, Iowa. Rates found not unreasonable as maxima. Division of joint through rates prescribed."

Docket No. 11185—Shafer Oil & Refining Co. et al. v. Director-General, as agent, Missouri, Kansas & Texas Railway Co. et al.

A tentative report in this case has been proposed by Examiner J. T. Money, the syllabus of which is as follows:

"Rate of 19.5 cents per 100 pounds charged on shipments of gas oil, in tank cars, from Cushing, Okla., to Neodesha, Kan., found to have been unreasonable and unduly prejudicial. Reparation awarded."

Docket No. 10287—The Consolidation Coal Co. v. Chesapeake & Ohio Railway Co., Director-General, as agent, et al.

A tentative report in this case has been proposed by Assistant Chief Examiner R. E. Quirk, the syllabus of which is as follows:

"Millers Creek Railroad held to be a common carrier, subject to the Interstate Commerce Act.

"Rates on coal, in carloads, from points on the Millers Creek Railroad, resulting from the cancellation by the Chesapeake & Ohio Railway of the absorption of the switching charge of the Millers Creek Railroad found not to have been unreasonable *per se*, but that such rates were and for the future will be unduly prejudicial to the extent they exceeded or may exceed the rates contemporaneously applicable from Group 5 district on the Sandy Valley & Elkhorn Railroad."

Docket No. 11114—Acme Cement Plaster Co. v. Director-General, The Fort Worth & Denver City Railway Co. et al.

A tentative report in this case has been proposed by Examiner W. R. McFarland, the syllabus of which is as follows:

"Rate on solar oil from Iowa Park, Tex., to Acme, Okla., found unjust and unreasonable. As the rate now in effect is satisfactory to complainant, complaint dismissed."

Docket No. 11249—Ludlow Manufacturing Associates v. Director-General, Philadelphia & Reading Railway Co. et al.

A tentative report in this case has been proposed by Examiner W. H. Wagner, the syllabus of which is as follows:

"Combination rates applied on barley and culm coal from Mahanoy and Shamokin Pa., districts, to Ludlow, Mass., found to have been unreasonable to the extent that they exceeded through rates contemporaneously in effect on prepared sizes, pea and buckwheat No. 1. Reparation awarded."

Docket No. 11152—Hord Alkalo Products Co. et al. v. Director-General, as agent, and Chicago, Burlington & Quincy Railroad Co.

A tentative report in this case has been proposed by Examiner W. R. McFarland, the syllabus of which is as follows:

"Rates on slack coal, in carloads, from the Sheridan, Wyo., group of mines to Antioch, Hoffman and Lakeside, Neb., found not to have been or to be unreasonable except during the period from June 25, 1918, to February 19, 1919, inclusive. Reparation awarded.

"Rates on above traffic found not to have been or to be unjustly discriminatory or unduly prejudicial."

Docket No. 11219—Sinclair Refining Co. v. Director-General, as agent, The Atchison, Topeka & Santa Fe Railway Co. et al.

A tentative report in this case has been pro-

posed by Examiner John T. Money, the syllabus of which is as follows:

"Rates on sludge acid in tank-car loads from Arkansas City, Eldorado, Augusta and Wichita, Kan., found to have been unreasonable. Reparation awarded."

Docket No. 10727—B. F. Sturtevant Company v. Director-General, New York, New Haven & Hartford Railroad Co.

A tentative report in this case has been proposed by Examiner Lawrence Satterfield, the syllabus of which is as follows:

"Rates charged during the period of Federal control for the transportation of iron and steel castings and tubing between Framingham and Readville, Mass., not shown to be unreasonable or unduly prejudicial. Complaint dismissed."

Docket No. 11134—Jones & McLaughlin Steel Co. v. Director-General, Aliquippa & Southern Railroad Co. et al.

A tentative report in this case has been proposed by Examiner G. H. Mattingly, the syllabus of which is as follows:

"1. The Aliquippa & Southern Railroad found to be a common carrier.

"2. Rates to and from the plants of complainant and intervener at Woodlawn and West Economy, Pa., found unreasonable and unduly prejudicial. Reparation awarded."

Docket No. 11196—The Ohio Cities Gas Co. v. Director-General, The Chesapeake & Ohio Railway Co. et al.

A tentative report in this case has been proposed by Examiner R. T. Eddy, the syllabus of which is as follows:

"Through rate of 41.9 cents on gasoline from Cabin Creek Junction, W. Va., to Minneapolis, Minn., found to be unreasonable to the extent that it exceeded the aggregate of the intermediate rates to and from Chicago of 38 cents. Reparation awarded."

Docket No. 11051—Cosden Oil & Gas Co. v. Director-General, Atchison, Topeka & Santa Fe Railway Co. et al.

A tentative report in this case has been proposed by Examiner John T. Money, the syllabus of which is as follows:

"Rate on wrought-iron pipe, in carloads, from Shamrock, Okla., to Virgil, Kan., found to have been and to be unreasonable. Reasonable rate prescribed for the future and reparation awarded."

Docket No. 10754—The Kansas Flour Mills Co. v. The Atchison, Topeka & Santa Fe Railway Co., Director-General, et al.

A tentative report in this case has been proposed by Examiner George F. Graham, the syllabus of which is as follows:

"Rates on coal, in carloads, from certain points in Oklahoma consigned to Oklahoma

points and reconsigned to points in Texas found to have been unreasonable. Reparation awarded."

Docket No. 11195—Ohio Cities Gas Co. v. Director-General, Central Railroad of New Jersey et al.

A tentative report in this case has been proposed by Examiner R. T. Eddy, the syllabus of which is as follows:

"Rates on spent sulphuric or sludge acid, in tank-car loads, from Cabin Creek Junction, W. Va., to Carteret, N. J., found to have been unreasonable. Reparation awarded."

Docket No. 11087—Certain-teed Products Corporation et al. v. Director-General, Alabama & Vicksburg Railway Co. et al.

A tentative report in this case has been proposed by Examiner H. C. Keen, the syllabus of which is as follows:

"Rates on liquid asphalt, in carloads, from New Orleans, La., and refining points in Louisiana taking New Orleans rates found unreasonable to the extent that they have exceeded or may exceed 22½ cents per 100 pounds to St. Louis, Mo., East St. Louis and Vandalia, Ill., and 26½ cents per 100 pounds to Chicago and Marseilles, Ill. Reparation awarded."

"Rates on liquid asphalt, in carloads, from refining points in the Beaumont-Port Arthur district of Texas found unreasonable to the extent that they have exceeded or may exceed 26 cents per 100 pounds to St. Louis, Mo., East St. Louis and Vandalia, Ill., and 30 cents per 100 pounds to Chicago and Marseilles, Ill. Reparation awarded."

Docket No. 11202—Parkersburg Rig & Reel Co. v. Director-General, Atchison, Topeka & Santa Fe Railway Co. et al.

"1. Following *Parkersburg Rig & Reel Co. v. A. T. & S. F. Ry. Co.*, 50 I. C. C. 416, rates on nails, when shipped in mixed carloads with oil-well outfits and supplies, from Parkersburg, W. Va., to certain points in Texas, found to be unreasonable. Reparation denied."

"2. Numerous shipments of rig-iron outfits and nails in mixed carloads from and to the above points found to have been overcharged. Reparation awarded."

Docket No. 10982—Electric Coal Co. and Casparis Stone Co. v. Director-General, Chicago & Eastern Illinois Railroad Co. et al.

A tentative report in this case has been proposed by Attorney-Examiner Arthur R. Mackley, the syllabus of which is as follows:

"Rates on coal applicable during the period of Federal control from Bronson, Ill., to Chicago, Milford and Jamaica, all in Illinois, as components of through rates from Missionfield, made by combination on Bronson, considered as to their reasonableness."

"Separate rate of the electric line from Mis-

sionfield to Bronson not passed upon because that carrier was not under Federal control."

"Joint rate from Missionfield to Milford, effective from June 27, 1919, to February 20, 1920, found unreasonable, and reparation awarded against the carrier from Bronson to Milford."

Docket No. 11278—The Midland Refining Co. v. Director-General, Missouri Pacific Railroad Co.

A tentative report in this case has been proposed by Examiner K. K. Gartner, the syllabus of which is as follows:

"Complaint seeking reparation on two carload shipments of sulphuric acid from Coffeyville, Kan., to Eldorado, Kan., dismissed."

I. & S. Docket No. 1170—Bituminous Coal from Sewell Valley Railroad Stations.

A tentative report in this proceeding has been proposed by Examiner E. H. Waters, the syllabus of which is as follows:

"Proposed cancellation of joint rates on coal from mines on Sewell Valley Railroad to destinations on the Chesapeake & Ohio Railway and its connections found not justified. The suspended schedules ordered canceled."

Docket No. 11262—Phelps Dodge Corporation v. Director-General, Arizona Eastern Railroad Co. et al.

A tentative report of this case has been proposed by Examiner J. T. Money, the syllabus of which is as follows:

"Rate of \$1.045 cents per 100 pounds applicable on coal tar, in carloads, from Hayden to Morenci, Ariz., found to have been and to be unreasonable to the extent it exceeded or exceeds 50 cents. A reasonable rate prescribed and reparation awarded."

Docket No. 11276—Mexican Petroleum Corporation of Louisiana v. Walker D. Hines, Director-General, as agent, Indiana Harbor Belt Railroad Co. et al.

A tentative report in this case has been proposed by Examiner J. Edgar Smith, the syllabus of which is as follows:

"Shipments of sulphuric acid in tank cars from Grasselli, Ind., to Destrehan, La., which moved during the period February 25, 1918, to December 1, 1919, inclusive, were overcharged. Neither the rates charged nor those which should have been charged were unreasonable; these rates did subject complainants to undue prejudice and were departures from the provisions of the long-and-short-haul clause of the fourth section of the act. No damage having been shown, and the carriers having offered to publish equal rates to apply on this commodity from Grasselli to Destrehan, Baton Rouge, La., and New Orleans, La., it is recommended that upon the publication of such rates and the certification to the Commission of the repayment of overcharges this proceeding be dismissed."

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ENGINEER TELLS HOW TO CARE FOR COAL-MINING MACHINES

There are a number of things in connection with the use of mining machines that are absolutely necessary to insure economy and success in operation, and unless particular attention is given to them it is difficult to insure entire satisfaction to all parties concerned.

First and foremost is the attention to and the care of the bits, cutter chain and cutter arm. The bits should always be sharp, even if it necessitates frequent changing, as the time lost in changing is not nearly so serious as the strain on the machine when operating with dull bits. In addition to excessive strains, the motor is overloaded even to the extent of 100 per cent., and the wear of all parts is very materially increased.

The only way to have sharp bits is to keep a good supply on hand, and take them with the

machine. It is also very important that the bits be so shaped that they have sufficient clearance at the back, as a parallel sided bit increases the power consumption very materially. The forms sent with the machine show the correct shape, and someone should check these up occasionally and see that they are made correctly. The back part of the bit should be at least $\frac{1}{4}$ inch less in width than the front. Care should be used to see that the bits are set the right distance out from the chain in order to insure clearance for the cutter arm and the links, and also that the set screws are absolutely tight. Dull bits, insufficient clearance at the back of the bits, and insufficient clearance for the cutter arm are a source of a great deal of trouble on coal-cutting machines of all kinds, and it is most important that every care be used to insure satisfactory conditions in regard to these points.

The chain should be kept moderately tight, but not so tight that it binds, and it is often overlooked in inspecting that on new machines considerable slack develops in the first few hours of running, due to slight irregularities in the holes in the chain, which are smoothed down as soon as the machine is put into operation. The smoothing down of even .001 inch on a large number of links will add considerable to the length of the chain, and the tension should be watched very carefully on new machines. The chain should be tightened up as far as it will go, and then slacked off about one turn of the set screw. If the operator gives this matter some attention, he can soon arrive at the proper chain tension by observing how it acts under different conditions. It takes very little time to note the operation and experiment a little with various tensions, and it is well worth the trouble.

The hardened strips and wearing parts of the cutter arm should be renewed as soon as the center line of the chain gets out of line with the center line of the cutter arm, as this will cause a reduction in the depth of the kerf and cause the cutter arm to bind. The same condition is brought about by the wearing of the parts of the chain links which fit into the hardened guides on the cutter arm. This condition is easily detected by trying to lift the chain when it is not running. If it can be raised from $\frac{1}{4}$ inch to $\frac{3}{4}$ inch, these parts should be immediately renewed. It will be observed that the depth of the kerf is entirely dependent upon the chain being held in a central position.

In replacing broken links care should be taken that the new link will give the same bit position as the one taken out. In many cases the machine runners put in a new link without paying any attention to this, and in a short time a number of the positions in the chain are entirely eliminated so that the machine is not cutting over the full area of the kerf depth. This leaves portions of coal which are broken out by the chain links in-

stead of by the bits, with a consequent increased power consumption and wear and tear on all parts. Care should be taken to see that all bits are in position, as the chain links cannot be expected to cut coal.

Another serious matter in connection with the operation of the machines which is not looked after properly in a good many cases is the renewal of gearing. Gears are sometimes replaced without renewing the pinions, or pinions are replaced without renewing the gears. This is very poor practice, as a worn gear or a worn pinion is never satisfactory when operating with a new part. Unless one of the members is in practically a new condition it should never be left in when renewing the gear or pinion meshing with it. This is most serious with worn gears, as when one of the parts is badly worn it tends to destroy the other very rapidly.

With renewing bearings, all the bearings for a set of gears should be replaced in order to insure correct gear meshing, as it is very little use to replace the bearings on a shaft when the shaft carrying the meshing gear is running in partially worn bearings.

Another point that cannot be brought out too strongly is the question of keeping accumulations of dirt out of the motor and gearing, as a machine cannot be expected to operate satisfactorily when dirt is piled up around the bearings and gears where it can work into and destroy the rubbing surfaces.

E. E. VAN SLYKE, Consulting Engineer,
The Jeffrey Mfg. Co., Columbus, O.

HOLBROOK NEW ASST. DIRECTOR OF U. S. BUREAU OF MINES

E. A. Holbrook just has been designated assistant director of the Bureau of Mines. He has assumed his new duties. Some of the high points of his career are as follows:

He is 40 years old, born at Fitchburg, Mass., and attended the public schools there. When a young man, worked in mines in Montana. Was a member of the Miners' Union, the Western Federation of Miners.

1904—Graduated from the Massachusetts Institute of Technology in Mining Engineering.

1904—Sampler and underground surveyor, Standard Ore Company, Montana.

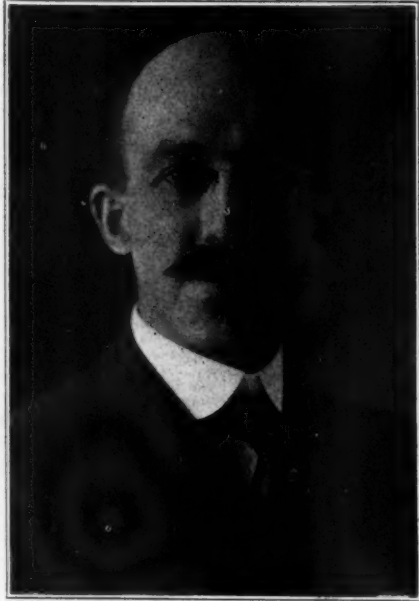
1905—Superintendent, Ruby Gulch Mining Company, Zortman, Montana.

1906—Superintendent, Gould Mines Company, Gould, Montana.

1907-8-9—General superintendent, Daly Reduction Company, Hedley, British Columbia. (This company was at the time the largest producer of gold in the Dominion of Canada.)

1909-1910—Examining engineer. Examined mine properties in Nevada, South Dakota, Georgia, Cobalt, Ontario and Province of Quebec, and was employed for a time at Guanajuato, Mexico.

1911-12-13—Headquarters, Halifax, Nova



E. A. HOLBROOK

Scotia. Designed and erected mining laboratory for Department of Technical Education, Province of Nova Scotia. General engineering work, mostly in coal mines, and for a time was in charge of the mining department of the Nova Scotia Technical College.

1913-15—Associate professor in the mining department of the University of Illinois, Urbana, Ill.

1915-17—Professor in same department. During this period continued engineering and investigational work in the coal mines of the central district.

1917—Made Supervising Mining Engineer, United States Bureau of Mines, in charge of the Middle West Coal Fields Station, Urbana, Ill.

1919—For six months Acting Chief Mining Engineer, Bureau of Mines, Washington, District of Columbia.

1919—July to present time, superintendent in charge of the Pittsburgh Experiment Station of the Bureau of Mines.

Author of about 25 articles on coal and metal mining subjects which have appeared in the technical press during the past 10 years. Author of two bulletins on Coal Preparation, published by the Engineering Experiment Station, University of Illinois.

Married and has four children.

Has honorary professional degree of engineer of mines, granted by University of Illinois in 1916.

TWO COUNTRIES INTERESTED IN BIG FIRST AID AND RESCUE CONTESTS

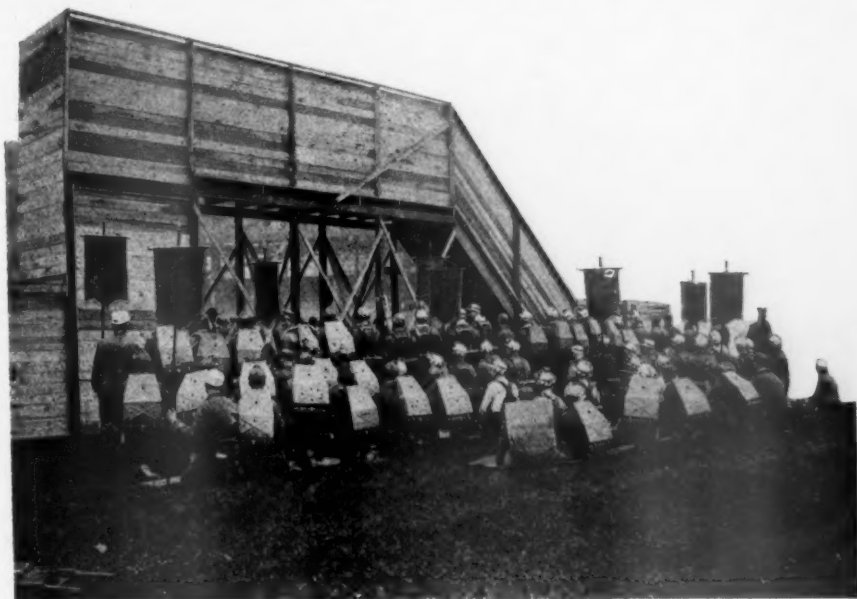
Teams of miners from Canada and Mexico have been invited to attend the International First Aid and Mine Rescue Contests to be held at Denver, Col., under the jurisdiction of the United States Bureau of Mines September 9, 10 and 11, and the meet promises to be of unusual interest to the mining industry.

Last year at the Pittsburgh meet about 125 teams of miners competed and although the exhibitions will be held this year in the far west, equally as large a number of entrants are expected.

Mine rescue and first aid work is gradually extending under the direction of the Mines Bureau and it is estimated that 100,000 miners have been trained in such work by this agency. In fact the movement is of great importance in all mining and is effective in saving the lives of many miners and preventing injuries to many more. The bureau maintains rescue cars and stations in all of the prominent mining districts of the country, and regularly sends out trained men who impart the instruction to the miners. Some of the instruction is given in mine rescue work alone, while other instruction is had in first aid, while in many cases the combined training has been given.

The system is so well organized and trained miners are represented in so many mines that now in case of a mine disaster a crew of trained rescuers and first aid men can be gathered within a fifty-mile point, capable of rendering quick treatment. The object of the training, which is bearing rich results, is to reduce deaths and lessen injuries among miners. It is said that practically all the mines of the country have either a rescue or first aid team or both at the mines available for duty, and the members take a great pride in their work. The results of the work are shown in that injured miners are able to return to work much earlier when they receive this prompt treatment. The practice of olden days in applying a quid of tobacco to a cut has gone into disuse with the new system, under which trained miners are able to use sterilized methods and treat wounds the same as an up-to-date doctor.

This work is more important in mines than in factories, because a miner is usually injured under the earth in darkness and heretofore it has been necessary to have him brought out into the light and air for treatment. The rescue work has been so developed that now first aid can be admin-



MINE RESCUE TEAM SHOWING BACK VIEW OF EQUIPMENT.

istered to the men in the mines. An instance is cited where a miner was crushed while in the mine. The rescuers applied body heat until other help arrived and it was said later that the man would have succumbed had not this treatment been applied. Practically all of the mining operators are heartily co-operating in this work, by affording the men materials and facilities and meeting places.

F. J. Bailey, assistant to the Director of the Bureau of Mines, is in administrative charge of the Denver exercises, which will be in direct charge of D. J. Parker, chief of the mine rescue work at the bureau's station, Pittsburgh, Pa. Inquiries in regard to the meet prior to September 1 should be addressed to Mr. Parker at Pittsburgh.

Handsome cups, trophies and other awards will be given to the winners in the competition, which is designed to promote interest throughout the mining industry in safety measures, and to instill an esprit de corps among miners which will mean a further saving of life and lessening of suffering.

In this connection it is interesting to note that the Joseph A. Holmes Safety Association, the hero commission for the mining industry, has announced the awards to miners for special deeds of bravery in the saving of human life during the last three years in the United States. Gold hero medals are to be presented to four Western miners and to the nearest surviving relatives of three others who sacrificed their lives in attempts to rescue other miners from death. The formal award of the medals will be made by Dr. Frederick G. Cottrell, director of the Bureau of Mines and president of the association, during the contest at Denver.

The men who will be awarded gold hero medals and diplomas and the deeds they performed are as follows:

John L. Boardman of Butte, Mont., safety engineer for the Anaconda Copper Com-



FIRST-AID TEAM OF THE H. C. FRICK COKE CO. AT WORK.

pany, who lone-handed saved three miners mine, adjoining the West Colusa mine, of the company and assisted in the rescue of a fourth. A fire in the Leonard copper mine, adjoining the West Colusa mine, filled the latter mine with poisonous gases. Boardman, wearing the oxygen rescue apparatus familiar to rescuers, at the risk of his life, entered the gas-filled mine four separate times to save life.

The next to receive the gold hero medal will be Daniel Bionvitch of Biwulik, Minn., an employee of the Balkan Mining Company. A fire broke out in the Belgrade mine of the company in which one life was lost and many others jeopardized. Three times Bionvitch drove his electric locomotive through smoke and gases, bringing out helpless men, and, finally, a fourth time he brought out a fellow-worker.

A third and fourth medal will be awarded to James Collins and James Dilimirk, both of Mullen, Idaho, and employees of the Gold Hunter Mining and Smelting Company of that place. While endeavoring to reach two entombed men in the mine, they themselves were caught by a cave-in and imprisoned for 15 hours; when rescued they were buried to the shoulders. The two men they were endeavoring to rescue, Peter F. Grant and Emil Sayko, were finally brought from the mine alive, after having been entombed for more than 14 days. Fellow-employees took seven days to drill a hole through to the imprisoned men, and by this means furnished them with food, water, light and silk clothing, after they had been without food for five days and without water for four days.

Three other heroes, miners for the North Butte Mining Company, at Butte, Mont., sacrificed their lives in trying to save others. The nearest living relative of each of the three men will be at Denver during the first aid and mine rescue contest and will



PRIZE TROPHIES.



GIBBS APPARATUS, FRONT VIEW.

receive from Dr. Cottrell the gold medals and the diplomas detailing the heroic deeds of the dead men.

On June 8, 1917, a fire occurred in the Speculator shaft of the North Butte Mining Company. When the fire started Michael Conroy and Peter Sheridan of Butte, both employees of the company, started down into the mine to save their fellow-men, but before they reached them the fresh air which had been coming down the shaft reversed, allowing hot and poisonous gases to come up the shaft. When the cage was hoisted to the surface, the bodies of the two brave men were found on the cage burned to a crisp. The relatives of these two men will receive the medals.

James D. Moore, another miner at the same fire, went through the mine attempting to bring the miners to the surface. After he had collected seven men, he was driven back by the smoke and decided that the only hope would be to build a bulkhead as a protection against the gases and remain behind it until rescued. Under his direction the bulkhead was erected, requiring five hours for completion and inclosing the party of eight men. They obtained air from

a compressed line nearby. With nothing to do but wait, Moore cheered the men and in the meantime wrote a farewell letter to his wife. Sixty hours after the completion of the bulkhead rescuers wearing apparatus found the barricade and broke through and found six men alive and two dead, the latter including Moore. The six men were brought safely to the surface; they all gave credit to Moore for saving their lives, since without his guidance and direction they would have been suffocated.

The awards were decided upon by a committee of the association, composed of James W. Paul, representing the Mine Inspectors' Institute of America; William Green of the United Mine Workers of America, and John Turner of the Mine, Mill and Smelter Workers. Others who participated in the making of the awards were James Lord, United Mine Workers of America; George S. Rice, American Institute of Mining Engineers; David White, American Academy of Sciences; O. P. Hood of the Society for the Promotion of Engineering Education; Arthur E. Holder, representing Samuel Gompers, president of the American Federation of Labor; Charles D. Walcott, vice-president of the association, and David T. Day, secretary.

The association was created shortly after the death of Dr. Joseph A. Holmes, the creator of the Bureau of Mines and its first director, and was in recognition of the memory of Dr. Holmes and the humanitarian work that he initiated.

After organization, the society agreed to award diplomas and medals of honor to persons in the mining and metallurgical industry for deeds of heroism or praiseworthy acts in efforts for the rescue of imprisoned miners or persons in jeopardy and to give recognition in proper awards for persons who may devise or put into use appliances for the benefit of greater safety or mine rescue or recovery operations.

Coal Mining Retarded

Owing to the withdrawal of all Alaska coal lands from entry in 1906, there was no development of the coal fields until the leasing law went into effect in 1914. Since then some advances have been made, but operations have been hampered by economic conditions imposed by the war and by certain restrictions in the leasing law. As a consequence Alaska has produced in all only 253,000 tons of coal, and her output in 1919 was only 60,000 tons. Meanwhile, she is importing annually about 100,000 tons of coal from Washington and British Columbia.



Charles Piez, president of the Link-Belt Company, in a letter to the United States Railroad Labor Board said:

"The practice of basing wages on the cost of living, without taking into account the work performed for the wages, is at the very bottom of the present disturbed and unsatisfactory labor condition. If we accept the figures submitted by Mr. Lauck that \$1700 represents the lowest subsistence level and \$2500 the lowest comfort level for an American family, and base the scale of wages in the transportation service on the assumption that every man engaged in it, no matter where he lives, whether married or single, is entitled to a wage based on a scale with those figures as minimums, would it not be fair to assume that every wage earner in every character of employment everywhere in this country is entitled to a scale based on that same minimum? Your board can render a signal service to the country by indicating that while wages should be equalized in those cases that have lagged behind in the wage readjustment, wages can't be paid unless they are earned, and that we can't get more out of the common pot than we put into it.

"The divorce of wages from production has been one of the calamities of the war, for it has created in the mind of the wage earner the delusion that irrespective of output, performance or character of service rendered, he is entitled to live on a certain scale.

Representative McLaughlin of Michigan in discussing the bill to permit associations of agricultural producers, said:

"I am opposed to special legislation or legislation in behalf of any special class. Organizations such as is contemplated by this measure have been considered by some as contrary to the letter of the anti-trust law. I believe that no one who knows anything about organizations of this kind would consider them contrary to the spirit of that law. I consider it as a definition of what are not objectionable organizations; a defi-

nition of entirely safe and proper organizations which are not intended to be included and which are not in fact included in anti-trust laws."

Representative Sanders, on the floor of the House, in discussing railroad legislation, said:

"The republic at war and the republic in peace require the same sort of patriotism, but that does not mean that the governmental policy shall be the same. The distinctive feature of the Government of these United States has been freedom of action for the individual; freedom of action in an orderly way with careful recognition of the rights of others. The great industries of the country, the vast business of the nation, the phenomenal prosperity of our people, the wonderful happiness in our land have all been brought about because of the recognition of this principle. Where other countries united business and the State, it has been the purpose of our statesmanship to separate the two. We have been most happy and contented during the times when the Government least touched business affairs.

"During this time of great development the Government has dealt with distinctly governmental affairs. It has not undertaken to carry on the business of the country. By legislation it prevented evil practices in business, but that is a governmental function. The problem of changing from the governmental policy during war times to the pre-war basis is not such a simple one, but rapid strides have been made toward this end. We must continue this course until there is a complete divorcement of business and Government.

Representative Parrish, in discussing the Revenue Law, said:

"The complicating features of the Revenue Law have made it necessary for all concerns doing a business of any consequence to employ an attorney at a high salary, or at a large fee, in order to tell them

how to pay their taxes to the Government. I believe that we ought to have a taxing system that will be so clear and plain that a man could tell what he owes the Government without paying out several thousand dollars to get an attorney to advise him. Not only that, but there comes a time in the conduct of the business enterprises of the nation when excess profits taxes or excessive taxation will stifle and stagnate industry. All over the country there are ranches that would be cut to pieces and sold to farmers and the farmers given an opportunity to buy farms, the country would get the benefit of increased production so much needed by the world at this time, if it were not for the high excess-profits taxes which they would have to pay. It seems to me that we ought not only to simplify the laws but also by the strictest economy in Government reduce the taxes and devise a system of taxation that will be just and that will not stifle any industry in the nation. Certainly a scheme of taxation that can be evolved which will not stifle any industry and which will not cause business stagnation is the duty of Congress to work out. Many men do not know what their taxes amount to, and their lawyers cannot tell them. I have a little sketch from a paper which shows in a way the popular idea of the complexity of these laws:

The Search.

We saw Diogenes the other day with his lantern.

"Still looking for an honest man?" we asked.

He shook his head mournfully.

"No; I gave that up long ago. I wish I'd stuck to it. It wasn't half so hopeless as what I am doing now."

He certainly looked despondent, and our heart went out to him.

"What are you looking for now, then?" we asked.

He sighed.

"I'm looking for a Congressman who made out his income tax without anybody's help."

The National Association of Manufacturers, at its recent convention, declared in favor of limited profit-sharing and against general profit-sharing. In summing up their opinion they say:

"We are of the opinion that general profit-sharing plans are, especially in large organizations, impracticable, are unacceptable to the wage earner, and that of the price paid by the consumer for the product that portion rightfully belonging to labor (the employee), should be paid as regular wages. Also that limited profit-sharing may be advised:

(a) To those employees held adminis-

trative positions, or directly connected therewith.

(b) For the promotion of savings, in the form of a contribution to be added to the employee's own payment to the savings fund.

(c) Lastly and most important of all, in the form of assistance to the employee to acquire ownership of an interest in the industry in which he is engaged."

Royal Meeker, in a recent issue of the *Monthly Labor Review*, says:

"Democracy, if it is not to perish from the earth, must be organized for efficiency. It must become far more efficient than it ever has been at any time in the past. We are told that democracy has just won a tremendous victory over autocracy. Our rejoicings must be tempered by the remembrance of the awful cost of the victory in lives shattered and snuffed out, in wealth squandered and destroyed, in the chaos which has been unloosened on the earth. When we count up the costs we do not feel too confident of the fullness of this victory nor too secure in its beneficent results. The victor suffered far greater losses both in men and in material wealth than the vanquished. Democracy won by sheer weight of numbers and of wealth. Had not autocracy been divided against itself it could not have been overthrown by the partial and inefficient democracies which opposed it. In order to win, democracy was driven to adopt autocratic methods and practices—methods and practices which still persist and fill Democrats with apprehension. A speedy readjustment, political and industrial, on a more democratic basis is necessary. The few feeble, tottering steps which we have taken on the road toward democracy, both political and industrial, will not and cannot be retraced. The evils, shortcomings, and imperfections of our present democracy cannot be eradicated by reverting to autocracy which we have in part shaken off. The cure for democracy is more, not less democracy."

Development Stopped

The Alaska oil lands were withdrawn from entry in 1910, and thereby practically all petroleum development was stopped until the passage of the leasing law in 1920. In spite of this handicap some 53,000 barrels of petroleum have been produced in the Katalla field.

B. V. E. Nordberg, son of the pioneer engine and hoist builder, B. V. Nordberg, has been appointed sales manager of the Nordberg Manufacturing Co., Milwaukee, Wis.

H. W. Dow, former sales manager, recently resigned to become vice-president and engineer of the Forest Products Chemical Co., Memphis, Tenn.



The Sixty-sixth Congress adjourned June 5. It is not likely that President Wilson will call an extra session, and it is not now anticipated that the many important matters which should have received action before adjournment will be considered before the early part of 1917.

Among the more important bills which failed of final action were the War Minerals Relief and War Minerals Tariff bills. They, however, have preferential place upon the calendar and will come up for early attention shortly after Congress convenes on December 6.

There were introduced in the House of Representatives, during the Sixty-sixth session, 14,840 bills, and in the Senate 4721 bills, making a total of 19,561 bills introduced. The railroad transportation act was perhaps the most important of the measures to receive final action. The Water-power bill was signed in the ten days Attorney-General Palmer decreed allowed the President after adjournment of Congress. Uncertainty as to the legality of this act exists, some authorities holding that the President must act upon a bill while Congress is in session. The McFadden bill, for the protection of the monetary gold reserve, was not reported out by the House Ways and Means Committee, but early action is hoped for after December 6. Senator Henderson, shortly before adjournment, introduced a bill providing for the creation of a Division of Mines and Geology, with an Assistant Secretary of the Interior in charge of its activities. Senator New of Indiana introduced a bill providing for an Alaskan Development Board to supervise development of Alaska. Representative Darrow introduced a bill providing for an exhibition of mining and other products at Philadelphia in 1926, celebrating the 150th anniversary of the Declaration of Independ-

ence. The bills introduced to relieve miners from annual assessment work failed of action. The Hayden bill, providing for mining on Indian reservations, remains in committee without action thereon. Numerous tax bills were introduced, but none received final action. The Volstead "Blue Sky" bill is still in committee. An opinion by the Attorney-General, making adverse comments on the bill, created a situation which prohibited the committee on agreeing upon a bill. Coal came in for much discussion during the session, but no direct legislation was enacted. One of the most interesting coal bills provides for a Federal Coal Commissioner. The seasonal rate bills received considerable discussion, but no action was taken upon them. Senator Phelan introduced a bill providing for a Government Oil Corporation to develop oil in foreign fields, upon which Secretary of the Interior make a favorable report.

Legislation for the prevention of strikes in industry was one of the hardest fought pieces of legislation. The effort to put such a clause in the Cummins-Esch railroad law ended by substituting a Railroad Labor Board of nine members. The Poindexter bill, providing severe punishment for attempts to obstruct transportation or industries contributing to the transportation system, was reported from the Senate Interstate Commerce Committee during the closing days of the session.

With the reconvening of Congress many of these bills will again be considered. On the following pages will be found a complete resume of the present status of all bills which have been reviewed in the MINING CONGRESS JOURNAL since January 1. We shall be glad to forward copies of any bill to our members and to give any information possible concerning their status:

S. J. J.

Bill no.	Introduced by	Referred to	Committee	Amendments	Committee	Final disposition
H. Res. 372	Mr. Harp	Government control of coal	Judiciary			
H. Res. 576	Mr. Harp	Government control for one year	Judiciary			In Committee.
H. R. 12736	Mr. Harp	Abolishment of Government control after year delayed.	Judiciary			In Committee.
H. R. Res. 296	Mr. Keller	Government control of coal	Agriculture			In Committee.
H. R. Res. 146	Mr. Harris	Information as to income and profits tax for 1918	Appropriations			In Committee.
H. R. 11992	Mr. Dyer	Prohibiting exportation of coal	Finance			Passed by Senate June 5, 1918.
S. 4688	Mr. Frelinghuysen	Federal Control	Interstate and Foreign Commerce			In Committee.
S. 4689	Mr. Frelinghuysen	Federal Coal Commissioner	Interstate Commerce			In Committee.
S. 4690	Mr. Caldar	Federal Control	Interstate Commerce			In Committee.
S. 4687	Mr. Frelinghuysen	Regulation of freight rates - April to August	Interstate Commerce			In Committee.
H. R. 12802	Mr. Tilton	Federal Control	Interstate Commerce			Referred by sub- committee.
H. R. 13230	Mr. Hobson	Regulation freight rates	Interstate Commerce			In Committee.
H. R. 13231	Mr. Hobson	Freight Control	Interstate Commerce			In Committee.
H. R. 13258	Mr. Cooper	Regulation Freight Rates	Interstate Commerce			In Committee.
H. R. 13725	Mr. Cooper	Federal Coal Commissioner	Interstate Commerce			In Committee.
H. R. 13726	Mr. Frelinghuysen	Regulation of Freight Rates	Interstate Commerce			In Committee.
H. R. 13727	Mr. Frelinghuysen	Regulation of production and distribu- tion of coal	Interstate Commerce			Referred by sub- committee.
H. R. 1378	Mr. Radcliffe	National security and defense by encouraging the production and distribution of fuel.	Judiciary			In Committee.
H. R. 138	Mr. "G" Lee	Authorizing the Secretary of the Interior to make a survey of the coal resources of the United States and to make recommendations thereon to insure a supply of coal for the industries.	Judiciary			In Committee.
S. Res. 126	Mr. Frelinghuysen	This bill empowers the Committee on Inter- state Commerce to investigate into the coal resources of the United States and to make recommendations thereon to insure in the nation price of coal.	Public Lands			In Committee.
			Contingent Executive			In Committee.

Sittings held.

CONTENTS

Bill No.	Introduced by	Provision for	Referred to Committee	Special Study	Final Disposition
H.R. 10969	Mr. Platt	Regulating export silver bull dollar and coin.	Coinage, Weights and Measures.	In Committee.	
H.R. 11286	Mr. McPhaden	Authorizing Secretary of the Treasury to sell and deliver to the Government gold coins at 90¢ fine, and 80¢ fine for silver coin.		In Committee.	
H.R. 11721	Mr. Platt	Abolishment of Sub-Treasury.	Finance, and Currency.		
H.R. 13001	Mr. McPhaden	Protection of monetary gold reserves, by bonds upon newly mined gold.	Banking and Currency.	Reported in House Feb. 25. In Committee.	Forwarded into law on legislative bill.
H.R. 13013	Mr. Evans	Remitting gold and silver deposits from income and excise profits tax.	Revenue and Finance.		
H.R. 13064	Mr. McPhaden	Halting the destruction of gold coin a crime, and providing punishment therefor.	Coinage, Weights and Measures.	In Committee.	
S. 993	Mr. Thomas	Authorizing the President to appoint commissioners to an international monetary conference.	Foreign Relations.	In Committee.	

S. A. T. E. R.

Bill No.	Introduced by	Provision for	Referred to Committee	Special Study	Final Disposition
S. 9022	Mr. Frickingham	Exemption of time for failure to pay tax at time fixed by law.	Finance.	In Committee.	
H.R. 11991	Mr. Buchanan	Special Excise Profits Tax.	Excise.	In Committee.	
H.R. 12957	Mr. Nolan	Excise Tax.	Revenue and Finance.	In Committee.	
S.J. Res. 157	Mr. Eliot	Defining method of computation excess profits tax.	Finance.	In Committee.	
H.R. 13076	Mr. Evans	Excise Tax upon distribution capital stock during life.	Revenue and Finance.	In Committee.	
H.J. Res. 315	Mr. Little	Tax upon all surplus and profits.	Revenue and Finance.	In Committee.	
H.R. 12700	Mr. Sherman	Tax on termination.	Revenue and Finance.	In Committee.	
H.R. 12796	Mr. Thompson	Tax upon advertisements.	Revenue and Finance.	In Committee.	
H.R. 13066	Mr. Hawley	Exempting foreign organizations from taxation.	Revenue and Finance.	In Committee.	
H.R. 13771	Mr. Evans	Exemption of action upon industrial income in excess of \$100,000.	Revenue and Finance.	In Committee.	

L.A.R.D.S.

Bill No.	Introduced by	Provision for	Referred to Committee	Hearings	Amendations	Present Status	Final Disposition
S. 6, 696	Mr. Nye	Establishing Bureau of Citizenship and Americanization in Labor Department	Knowledges of Labor Day's			In Committee.	
S. R. 7034	Mr. Tinkham	Bureau of Housing and Living Conditions in the Department of Labor	Public Buildings & Grounds			In Committee.	
S. R. 8490	Mr. Mason	Bureau of the Unemployed	Labor			In Committee.	
S. R. 8474	Mr. Hurdan	Repealing Literacy Test	Immigration and Naturalization			In Committee.	
S. R. 8651	Mr. Johnson	Temporary Suspension of Immigration and Naturalization Committee.	Immigration and Naturalization			In Committee.	
S. R. 8643	Mr. Nolan	National Employment Bureau in the Department of Labor	Immigration and Naturalization			Reported in House May 18.	
S. R. 81	Mr. Luffin	Prohibiting Immigration for four years	Committee on Labor	Hearings held		In Committee.	
S. 1472	Mr. Sherman	Prohibiting Immigration for five years	Immigration and Naturalization			In Committee.	
S. 1462	Mr. Kempton	National Employment System	Immigration			In Committee.	
S. J. Res. 116	Mr. Smith	Investigations regarding insurance against unemployed	Education and Labor	Hearings held		Reported to Senate	
S. J. Res. 11	Mr. Edge	Commission to devise Policy of Cooperation between Employer and Employee	Labor			In Committee	
S. R. 8174	Mr. Hildreth	Enforcement of Immigration laws	Education and Labor			In Committee.	
S. R. 10831	Mr. Rhodes	Old Age Pension	Immigration			In Committee.	
S. R. 10758	Mr. Kelly	Collective bargaining in industries engaged in interstate commerce	Labor			In Committee.	
S. R. 10822	Mr. Sherwood	Old Age Pensions	Judiciary			In Committee.	
S. R. 10776	Mr. Kelly	Making teaching of violence a felony and providing punishment therefor.	Labor			In Committee.	
S. 1096	Mr. Rutherford	Employers' liability	Judiciary			In Committee.	
S. R. 12350	Mr. Johnson	Prohibiting immigration for period of two years	Education and Labor			In Committee.	
S. R. 12447	Mr. O'Connell	Prohibiting immigration until Jan. 1, 1940.	Immigration and Naturalization			In Committee.	
S. R. 12679	Mr. Campbell	Creation Women's Bureau, Department of Labor	Immigration and Naturalization			In Committee.	
S. Con. Res. 50 -	Mr. Tinkham	Any committee appointed to investigate industrial disputes must be composed of representatives of public interest	Labor			Passed by House 8 yeas	Public Law
S. 1107	Mr. Sheppard	Creation Bureau in Dept. of Labor to be known as Bureau of Interstate Cooperation Association.	Judiciary			In Committee.	
S. 8215	Mr. Frelinghuysen	Providing for punishment for instigation of strike among railroad employees.	Interstate Commerce			In Committee.	
S. 8404	Mr. Poincarter	Providing punishment for instigation of strikes which prevent movement committee.	Interstate Commerce			Reported in Senate May 29.	

A. F. L. - R. R. T.

Bill No.	Introduced By	Provision For	Referred to Committee	Special	Present Status	Final Legislation
H. R. 11405	Mr. Steele	Conferring additional powers on the Federal Trade Commission to investigate into combinations and conspiracies in restraint of trade and commerce and encourage commerce at unfair monopolies.	Interstate & Foreign Commerce		In Committee.	
H. R. 7765	Mr. Harman	Amending the Federal Trade Commission Act of October 15, 1914, to read: "The Federal Trade Commission shall have jurisdiction over all combinations and conspiracies in restraint of trade and commerce at unfair monopolies."	Judiciary		In Committee.	
H. 1245	Mr. Henderson	Making it unlawful for any common carrier engaged in interstate commerce to charge or receive any greater compensation in the transportation of passengers or goods or merchandise or to charge or receive any greater compensation for a longer distance over its main line than the aggregate of the intermediate rates for passenger or freight.	Interstate Commerce		In Committee.	
H. 1248	Mr. Curtis	Exempting Carriers from provisions Anti-Trust Laws	Interstate Commerce		In Committee.	Public Law 495
H. 1720	Mr. Root	Exempting Carriers from Anti-Trust Laws	Interstate Commerce		In Committee.	Public Law 495
H. R. 13158	Mr. Platt	To allow banks to have interlocking directorates.	Banking and Currency		Passed House & Senate.	Public Law 495
H. R. 13703	Mr. Volstead	Permitting combinations of farmers in selling their products	Judiciary		Copyrights Bill H. R. 13531 substitute for H. R. 13703, passed House May 31st.	

PUBLIC LANDS

Bill No.	Introduced by	Provision for	Referred to Committee	Merits	Present Status	Final Disposition
S. 2189	Mr. Smart	Agricultural entry of coal lands in Alaska.	Public Lands		Passed Senate Jan. 5.	
S. 2190	Mr. Smart	To authorize the consolidation of government lands and of privately owned lands.	Public Lands		In Committee.	
S. 2192	Mr. Smart	To amend the act providing for the reclamation of certain lands, to exempt pay-ments and private entry.	Public Lands		In Committee.	Public Law 459
S. 1729	Mr. Smart	To permit miners over 16 years of age to lease public lands in Alaska.	Public Lands		In Committee.	
S. R. 6993	Mr. Hernandez	Nothing available for entry temporarily withdrawn lands in Alaska.	Public Lands		In Committee.	
S. R. 6966	Mr. Walling	Specifically described and patented are available for location for non-metallic minerals, including oil and gas.	Public Lands		In Committee.	
S. 2217	Mr. Smart	Bill to cede unreserved public lands to the several states.	Public Lands		In Committee.	
S. 1257	Mr. Myers	To apply a portion of the proceeds of the sale of public lands to the settlement of debts or department of mines and mining.	Mines and Mining		In Committee.	
S. R. 10633	Mr. Hayden	To provide for the agricultural entry of coal lands in the United States.	Mines and Mining		Passed Senate April 5.	
S. R. 11017	Mr. Hollister	Mining Copper on Public Lands in New Mex-ico, Arizona, Utah and Nevada.	Public Lands		In Committee.	
S. 1111	Mr. New	Creation Department of Land and Mineral Resources.	Public Lands		In Committee.	
		Alaskan Development Board	Territories		In Committee.	

MISCELLANEOUS

HOUSE OF REPRESENTATIVES	Bill No.	Author	Referred to Committee	Reporting	Current Status	Final Disposition
SAB MINERAL RESERVE	H. J. Res. 170	Garland, Pennsylvania	Instructions of Commission	Replicable provisions of law	Oct. 25, 26 Dec. 1, 26 Feb. 17, 27	Replaced by following bill:
	H. R. 13933	Garland, Pennsylvania	Appeal to Court of Claims	Disamification with bond	Dec. 10 Feb. 17	Unanimously recommended House & Senate Committee.
	S. 4299	Starling for Polansky.	Appeal to Court of Claims	Disamification with bond		Passed Senate May 24th.

NAVY	H. R. 10249	Mr. Vestal	Creating a Safety First Division in Interstate Commerce Commission.			In Committee.

INTERNAL REVENUE COMMISSION	S. Res. 217	Mr. Watson	Investigation of socialist charges against employees of Trade Commission.	Audit and Control.		Investigation dropped.

TIRED RETROGESS CORPORATION	H. R. 10249	Mr. Kahn	Appointing a Commission to take over and operate nitrate plants at Redfield and Mendon Bluffs, Alabama.	Military Affairs.		In Committee.

RUFFERT LAY	S. 3762	Mr. Kuyper	Regulating Sale of Stock.	Interstate Commerce.		In Committee.
	H. R. 12663	Mr. Tolsted	Regulating sale for stock and judgment for fraud.	Judiciary.		In Committee.
	H. R. 425	Mr. McClintic	Having it unlawful upon the passage of a bill for any person corporation or partnership to offer for sale any stock or bonds in the United States without first giving notice of such intention to offer for sale such stock, together with a copy of the bill, to the Federal Reserve Board, and the amount of capital and capital stock issued.	Judiciary.		In Committee.

MISCELLANEOUS (continued)				
GOV'T. INDEPENDENT EFFICIENCY.	H. R. 294	Mr. Moore	Appointment of a Committee House and Senate to investigate and make recommendation of how Gov't. Bureau may be made more efficient.	In Committee.
METRIC SYSTEM	S. 3943	Mr. King	Providing for adoption of metric system.	In Committee.
OIL	S. 3334	Mr. Curtis	Giving Americans right to prospect for oil in foreign countries.	In Committee.
OIL CHARTER.	H. Res. 501	Mr. Tye	Investigating the rise in the price of gasoline.	Passed by House and report submitted by Fed. Trade Com.
NATIONAL BUDGET SYSTEM	S. 2671	Mr. Henderson	The Bill authorizes the Secretary of the Interior to conduct and investigate through the Bureau of Mines of oil shale, to determine the commercial and economic practicability of its utilization as a commercial source of energy. It appropriates \$100,000 for the purpose and to meet the expenses incurred.	In Committee.
NATIONAL BUDGET SYSTEM	H. R. 9763	Mr. McDonald	National Budget System for Government affairs.	Passed House and Senate and sent to President for signature.

MISCELLANEOUS (Continued)

HOUSE OF REPRESENTATIVES	Bill No.	Introduced by	Providing for	Referred to Committee	Committee	Present Status	Final Disposition
ARMY AND NAVAL							
ARMY	H. R. 3146	Mr. Smith	This bill provides that there shall be a general conference composed of the representatives of the Department of Agriculture, which conference shall have authority to issue licenses for the purpose of mining on public lands, opening and maintaining water projects.			Passed both House and Senate. Signed by President May 31 for signature. June 1st sent.	
DEPT. OF PUBLIC WORKS	H. R. 6609	Mr. Smith	Creating new departments and provides for the Department of Public Works with four Assistant Secretaries of Public Works.			In Committee.	
INTERNAL AFFAIRS	H. R. 3314	Mr. Spencer	Providing for the establishment of an Interior Department of the United States of America to be located in the District of Columbia, in the interest of conservation of natural resources, labor, education, art and science of the world.	Expenditures		In Committee.	
INTERNATIONAL COMMERCE	H. R. 3314	Mr. Smith	Authorizing the President of the United States to call a national conference of the United States.	Labor		In Committee.	
	S. 3172	Mr. Lodge	Giving the President power to call and preside over a national conference of the United States to consider questions relating to international communication.	Foreign Relations		In Committee.	
INTERIOR DEPARTMENT	H. R. 6551	Mr. May	Providing for the establishment of a branch of the Interior Department in the West.	Expenditures		In Committee.	
NATIONAL FORESTS	H. R. 6562	Mr. May	Providing for the transfer of the National Forests from the Department of Agriculture to the Department of Interior.	Public Lands		In Committee.	
DIVISION MINES AND GEOLOGY	H. 1349	Mr. Henderson	Providing for a consolidated Bureau of Mines and Geological Survey, in a Division of Mines and Geology under Interior Department.	Mines and Mining		In Committee.	

SALE OF SILVER UNDER PITTMAN ACT SIMPLIFIED—NEW FORM OF AFFIDAVITS

Under the express terms of the Pittman Act, silver purchased by the Director of the Mint under the act at the fixed price of \$1 per ounce one thousand fine must be the product both of mines situated in the United States and of reduction works so located. As previously announced, the Director of the Mint has received standing orders from the Secretary of the Treasury to purchase silver under the act up to an aggregate amount of 207,000,000 ounces, delivered at the option of the Director of the Mint at the Assay Office in New York, or at the Mints in Philadelphia, Denver, or San Francisco, and is making such purchases when satisfied by clear and unequivocal proof that the silver is the product of mines situated in the United States and of reduction works so located. Forms for such proof, appropriate for use in case of silver wholly produced and reduced in the United States, without admixture of foreign silver, were furnished to said Assay Office and Mints under date of May 15, 1920.

In order to cover the practical situation presented by the fact that a large proportion of the domestic production of silver is smelted and refined in conjunction with foreign silver and comes from the refineries as part of a mixed product of domestic and foreign silver, the Director of the Mint is further prepared to purchase under the act silver which forms part of a mixture of foreign silver and domestic silver up to the proportionate part of such mixed product which represents the product of mines located within the United States and of reduction works so located, upon clear and unequivocal proof as to the proportionate part of the mixed product which represents domestic production. Forms for such proof, appropriate for use in case of mixed silver, will be available at the Assay Office and Mints, and in addition to a general affidavit from the vendor in each case will include supporting affidavits from the miner, smelter and refiner, together with such sworn statements and exhibits from their books of account as may be required by the Director of the Mint. The form of general affidavit from the vendor, and of supporting affidavit from the miner are appended hereto for the information of all concerned; full information as to the additional supporting affidavits and proof will be available at said Assay Office and Mints. Deliveries of mixed silver under the act will be accepted upon the filing of a satisfactory general affidavit by the vendor, subject to the later filing of

the necessary supporting proof. It will be noted that as to the mixed silver already produced and refined, it will be necessary to show that the silver mined in the United States which enters into the mixed product, was delivered to reduction works located in the United States since January 17, 1920. It will be noted further that in order to have assurance that the benefits of the Pittman Act go to American producers, for whom they were intended, the Director of the Mint will require in connection with the purchases supporting affidavits from the miners to the effect that settlement has been made with them on the basis of the fixed price of \$1 per ounce, adjusted to the equivalent price for silver 999 fine and to the cost of delivery refinery to Mint.

The form of affidavit by vendor in connection with purchase of silver under Pittman Act is as follows:

State of..... }
County of..... } ss.

In order to make a sale of silver to the Director of the Mint in accordance with the provisions of the Pittman Act, approved April 23, 1918, the undersigned hereby represents and certifies under oath that he is the..... of....., owner of certain silver to the amount of.....fine ounces, more or less, forwarded to the United States Mint at..... on the.....day of.....1920, and delivered for sale to the Director of the Mint under the provisions of said Act for account of said vendor; that said silver is the product of mines situated in the United States and of reduction works so located, being either (1) wholly without admixture of the product of foreign mines or reduction works, or (2) part of a mixture of foreign silver and domestic silver delivered to domestic reduction works since January 17, 1920, and within the proportionate part of such mixed product which represents the product of mines located within the United States and of reduction works so located, delivered by such mines to such reduction works since January 17, 1920, after taking into account sales heretofore made to the Director of the Mint under said Act; and that the vendor will forthwith file with the Superintendent of said Mint such statements and exhibits from its books of account and also such supporting affidavits and sworn statements or exhibits by itself and by the miner, smelter and refiner as may be demanded by the Director of the Mint under said Act.

.....
 Subscribed to and sworn to before me this
day....., 192.....

The miner's supporting affidavit follows this form:

State of..... }
 County of..... } ss.

The undersigned, being duly sworn, deposes and says: That he is the.....of..... owner of the.....mine, situated in the County of....., State of.....; that the said.....has sold and delivered toon the.....day of..... 1920, at its smelting plant known as the..... smelter, situated in the County of....., State of....., fine ounces of silver, which was produced at the said mine located as aforesaid and contained in certain parcels of ore as described in settlement or liquidation sheet No.....of said....., and that said silver was paid for at the rate of not less than \$1 per ounce, adjusted to the equivalent price for silver 999 fine and to the cost of delivery refinery to mint.

.....
 Subscribed to and sworn to before me this
day....., 192.....

OREGON PLANS TO DEVELOP ITS IRON ORE DEPOSITS

The Oregon Bureau of Mines and Geology Commission held its annual meeting on June 4 at the office of the Bureau in the Oregon Building, Portland. The various activities of the Bureau were considered and a number of important lines of investigation authorized for the coming field season.

One of the interesting developments in the State is the finding of several deposits of iron ore in Columbia county. During the past several months the Bureau of Mines and Geology has made some investigation of the occurrence of the ore in this county. Representations made by the Bureau induced certain Chicago interests to come to Oregon to look into the situation with a view to establishing a plant for the manufacture of pig-iron. Considerable prospecting is now under way in numerous parts of the county, and the outlook is bright for the establishment of a real iron industry near Portland. The Bureau maintains close touch with this situation and is lending every assistance to render the present development as substantial and effective as possible.

Change Chicago Address

The Ingersoll-Rand Company of Illinois and A. S. Cameron Steam Pump Works, Chicago branch, announce a change in address. The new offices will be located at 709 Fisher Building, Chicago, Ill.

INDUSTRIAL NOTES

Worthington Pump & Machinery Corporation announce the purchase from the Platt Iron Works of Dayton, Ohio, their drawings, patterns, jigs, templates, special tools, goodwill and name on their following lines of product:

1. Oil mill machinery, suitable for the extraction of oil from all sorts of nut and seed products, comprising crushers, cookers, cake formers, presses, filters and pumps.
2. Hydraulic turbine and water-wheel line, covering their entire line of hydraulic turbines and water-wheels, horizontal and vertical, high and low head.
3. Feed water heaters, steel and cast-iron, horizontal and vertical.
4. High pressure air compressors for torpedo and other high-pressure charging, cleaning and discharging.

Gold Mining Slumps in Alaska

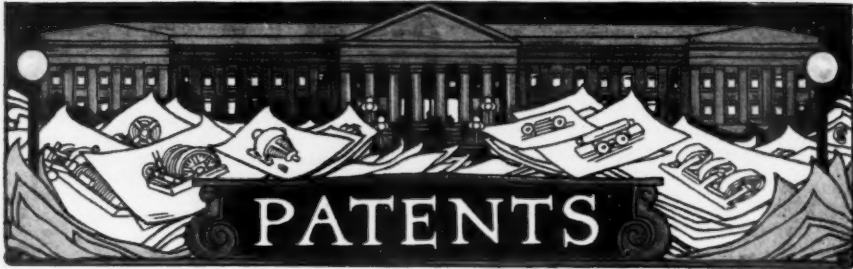
Alaska gold mining, like that of the rest of the world, has been curtailed because of economic conditions imposed by the war. As a consequence the value of the Alaska gold output has steadily declined from \$17,242,000 in 1916 to about \$9,550,000 in 1919. Gold mining has long been the principal Alaska industry, for though it has employed far less men than the fisheries, yet the prospectors and miners, unlike the fishermen, were all permanent residents of the Territory. In the past over 60 per cent. of the population has been directly or indirectly employed by the gold-mining industry. Therefore the decline in gold mining has been the principal cause of Alaska's loss of population and the discouragement of her residents. In 1916 4000 men were engaged in placer mining; in 1919 only 2000.

Platinum Being Mined

Platinum and related metals are being mined in Alaska. During the war Alaska produced antimony, chromite and tungsten. The known reserves of these metals are considerable. Quicksilver mining has been carried on in a small way for many years in the Kuskokwim region, and will no doubt continue. Molybdenite and bismuth ores are rather widely distributed in Alaska, and nickel ores have been found in the Territory.

Juneau Suffers

Alaska gold lode mining in the past has been chiefly based on large low-grade deposits of the Juneau district, whose profitable exploitation has been possible only by very large operations. The enormously increased cost of mining, owing to the present economic conditions, has greatly curtailed mining at Juneau.



CONDUCTED BY JOHN BOYLE, JR.

1,339,056—*George Demain*, Nogales, Ariz.
Ore-separating Machine.

1,339,161—*William E. Bryan*, Akron, Ohio.
Mechanical Classifier in which there is an inclined reciprocating deck having longitudinally extending tapered riffles, a pipe extending along the crest of the deck and an inclined feedboard disposed above the upper rear portion of the deck, and provided with riffles similar in character to those of the deck.

1,339,252—*Roman Zelcwski and Hermann Siegel*, Engis, Belgium.

Device for Pushing Back Ores into the Interior of Mechanical Muffle Roasting Furnaces.

1,339,300—*W. G. Swart, F. A. Jordan, E. W. Davis and T. B. Counsellman*, Duluth, Minn.

Process for the Magnetic Sizing and Grading of Ore consisting in imparting a desired velocity to a body of ore particles, then subjecting said particles to a magnetic attraction to withdraw substantially all save large tailing particles, then subjecting the remainder of said ore to magnetic attraction of such strength as to withdraw the fine concentrates from the middling and large high-grade particles.

1,339,471—*Archibald F. Meston*, New York. Assigned to Research Corporation.

Electrical Precipitator comprising a collecting electrode and a discharge electrode, means for striking the discharge electrode intermediate its ends to cause vibration thereof.

1,339,480—*Walter A. Schmidt*, Los Angeles, Cal. Assigned to International Precipitation Company.

Electrical Precipitator in which a clean electrode surface is maintained for receiving the precipitated material by distributing a liquid in a film over a porous surface, constituting a receiving electrode.

1,339,621—*Joseph A. Herbert*, Freeport, Tex.
Apparatus for Raising Liquids from Deep

Wells and especially adapted for sulfur mining.

1,339,682—*Charles Allen*, El Paso, Tex.
Settling-basin Separating Device. The method of preventing irregularity in the discharge of solid particles through the outlet orifice of a dewatering settler adapted to accumulate a substantial bulk of settled material which consists in filling the space centrally above the orifice and below the level of the settled material in a manner to leave an attenuated passage for the settling solids extending from above the discharge orifice for an appreciable distance.

1,339,683—*Charles Allen*, El Paso, Tex.
Upward Current Separating Process and Device. A method of varying the upward movement of a liquid carrying solid particles overflowing the top of the tank in a settling device by varying the length of the overflow periphery, whereby the velocity of the overflow of the liquid over the overflow lip is controlled.

1,339,684—*Charles Allen*, El Paso, Tex.
Slime Pulp Thickener.

1,339,950—*John T. Fowler*, Columbus, Ohio. Assigned to Jeffrey Manufacturing Co.
Pulverizer.

1,339,955—*Jean A. Hardel*, Paris, France.
Apparatus for and Process for Lining Wells and consisting in placing cement about a mold in the well and depositing a retaining core within the lining when the mold is withdrawn.

1,340,457—*Edmund Newton*, Minneapolis, Minn.

Apparatus for Separating Magnetic Material.

1,340,498—*Charles A. Pratt*, Chicago, Ill. Assigned to Goodman Manufacturing Co.
Power Shovel.

1,340,535—*Edward H. Garcin*, New York.
Process of Treating Asbestos comprising subjecting the asbestos to water and steam.

and disassociating the fibers by mechanical means.

1,340,731—*Edmund C. Morgan*, Chicago, Ill.
Mining and Loading Machine provided with a supporting frame comprising a chute open at its forward end, a carrier movable back and forth at the forward portion of the chute, means for dislodging material from a mine wall in advance of said frame and means for operating said carrier for receiving the dislodged material directly from its position in the mine wall, and transferring such material to the forward open end of said chute.

1,341,024—*Harry V. Seale and Wilton Shell-shear*, New South Wales, Australia. Assigned to Minerals Separation, North American Corporation.

Flotation Apparatus for Sulphide Ores comprising a number of separating boxes, communicating passageways between the boxes below their liquid level, agitating means within the separating boxes below their liquid level and disposed in the path of pulp flow from box to box, submerged casings surrounding their zones of agitation, means for introducing air into the casings and supplemental level equalizing passageways between the separating boxes.

1,341,129—*Ernest R. Hopkins*, Independence, Mo.

Dust Collector in which there is an upper chamber provided with an inlet and a lower dust-receiving chamber, filtering material interposed between the chambers, means to intermittently cut off the dust-laden air from the upper chamber and means for jarring the upper chamber and the filtering material to loosen the dust from the latter.

1,341,268—*Rudolph Gahl*, Miami, Ariz.

Ore-leaching and Settling Tank of considerably greater length than width, and adapted to contain large quantities of ore and liquid, means for elevating and delivering settled material from the bottom of the tank, said means comprising a float and slime elevating and delivering apparatus carried thereby.

U. S. Buys More Silver

Purchase of 1,700,000 ounces of silver at \$1 an ounce for delivery at Philadelphia and San Francisco was announced today by the director of the mint. This makes a total of 3,200,000 ounces acquired by the Government under the authority of the Pittman act this month.

Treasury officials estimate that 207,000,000 ounces of silver must be purchased under the provisions of the Pittman act, but they do not expect this to increase the price of silver, as there is little demand for the metal abroad at this time because several governments have ceased temporarily the coinage of silver money.

WILLARD GIBBS MEDAL

AWARDED TO DR. COTTRELL

DR. FREDERICK G. COTTRELL, recently named Director of the Bureau of Mines, was awarded the Willard Gibbs Medal by the Chicago Section of the American Chemical Society.

This prize, named for a distinguished American scientist, was founded by William A. Converse of Chicago, and is conferred "in recognition and encouragement of eminent research in theoretical and applied chemistry."

A Tip for Gold Miners

The most promising present field for Alaska gold lode mining is in the exploitation on a small scale of the auriferous lodes of higher gold tenor which have been found in many localities, notably in the Willow Creek and Fairbanks districts. Geologic information indicates a wide distribution of auriferous deposits, and there is every reason to believe that other workable deposits of gold-bearing quartz will be developed when the country is opened up by railroads and wagon roads.

Alaska's Coal Resources

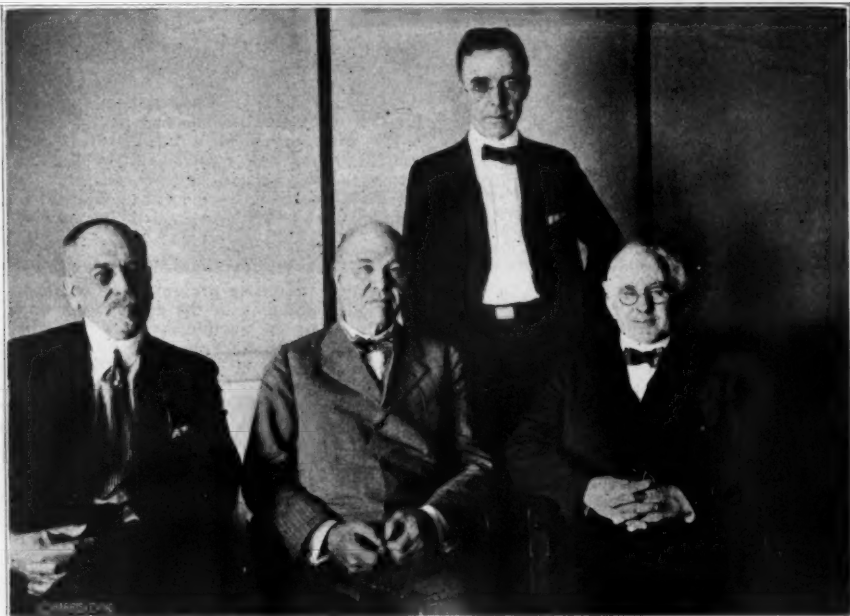
Much the larger part of the coal reserves of Alaska are lignitic, which, under present methods of utilization, are not available for export. The Bering River and Matanuska fields contain, however, very high-grade bituminous coals of a better grade than any found on the Pacific seaboard, as well as some anthracite. These coals are for the most part closely folded and much broken, making them expensive to mine and rendering them in part unavailable for present profitable exploitation. There are, however, in both fields high-grade coals that can be mined, and these will find an export market. Until these fields have been more thoroughly prospected by underground exploration it is impossible to predict how large an annual tonnage can be produced from them.

Copper in Alaska

Copper deposits are widely distributed in Alaska, and there is every reason to believe that their exploitation will increase under better transportation conditions. Much the larger part of the present copper output has come from the high-grade ores of the Chitina district. Larger bodies of low-grade ore have been found in several districts, notably on Prince William Sound, and the exploitation of these should give a greater stability to the Alaska copper-mining industry.

Matador Petroleum Company

The Matador Petroleum Co. of Cheyenne, Wyoming, of which Max W. Ball is general manager, has been organized to carry on the activities heretofore conducted in the Rocky Mountain States by the Roxana Petroleum Co. of Oklahoma, the Roxana Petroleum Corporation and the Shell Company of California.



First photograph of the Anthracite Coal Commission which President Wilson recently appointed to investigate differences between miners and operators. Left to right—W. L. Connell, Dr. W. D. Thompson and Neal J. Ferry. James A. Gorman, Executive Secretary, is standing. The commission is conducting its hearing at Scranton, Pa.

PLAN TO HURRY ALASKA'S DEVELOPMENT SUBMITTED

Plans are now being worked out for the greater development of Alaskan resources through policies which will attract new capital and improve transportation connection with the United States. Recommendations made in the report of a special committee appointed to study the Alaskan situation have been approved by Secretary Payne, and he has instructed the committee to put them into effect as soon as possible.

Two of the most important steps taken by the Department of the Interior are efforts to consolidate the two American shipping lines now serving Alaskan ports, with a view to greater economy and efficiency, and consolidation of Federal supervision of Alaskan affairs to secure prompt action.

Co-operation of the commercial organizations now interested in Alaska is expected in the plans for the opening of the resources of the territory, Secretary Payne said today. Conferences are expected to be held shortly with representatives of the Pacific Steamship Company and the Alaska Steamship Company, at which their opinions will be expressed. The purpose of the Department is to open the country generally to Americans.

"Alaska has immense natural resources which have never been developed properly," said Secretary Payne. "During the war the white population of the territory actually decreased from 50,000 in 1915 to 36,000 at present, and the output of minerals and other industries showed a similar decrease. The rich mining, agricultural and fishing reserves of the region have never been made properly available. Under the policies which the Department of the Interior is now putting into effect an opportunity will be given for the investment of new capital.

"Exploitation of the resources of the territory will not be turned over to one interest or group of interests. Improvement of shipping and railroad facilities is undertaken with the purpose of admitting fresh capital and opening the country for settlement by American citizens.

"The first step in this direction is the lowering of freight and passenger rates and the improvement of transportation and mail service through economies introduced by combination of two existing steamship lines into one, which the department hopes to effect.

"Concentration and co-ordination of Federal control of Alaska lands and resources is contemplated by obtaining legislative authority for an Alaska Development Board, and,

pending this, by the appointment of an Inter-Departmental Alaska Committee.

"Other plans include the co-ordination of Federal road construction, and the development of a plan for a comprehensive system of roads and trails to serve the entire territory. Also the requesting of an appropriation of at least one million dollars for the inauguration of this system.

"Investigation of the feasibility of smelting Alaska copper ores on a commercial basis within the territory will be undertaken. Of great importance also is the immediate development of an Alaska pulp-wood industry, and additional surveys of timber and water power, looking to the largest possible development of this industry."

The policies endorsed by Secretary Payne are based upon a report just submitted by a committee consisting of Dr. Alfred H. Brooks, chairman, representing the Department of the Interior; H. Y. Saint, for the Shipping Board; Otto Praeger, Second Assistant Postmaster-General, and E. A. Sherman, Department of Agriculture. The committee has completed a month's study of the Alaskan situation, involving extensive hearings in Seattle, at which representatives of various Alaskan interests were questioned.

The total value of Alaska's mineral, fish, fur and other products from 1867 to 1919 has been approximately one billion dollars. The most prosperous year was 1916, when the total output was \$89,000,000. Alaska contains extensive areas of farm lands suitable for raising the hardier grains, including wheat, potatoes, forage crops and many varieties of vegetables. The timber resources include about 75,000,000 acres of forest. Nearly all of Alaska's resources are directly or indirectly controlled by the Federal Government. About 99 per cent. of the land is still in Government ownership. The development of coal and oil deposits is under Government leases. Water-power and fisheries are under Federal control, and nearly all Alaska timber is in Government ownership.

COAL OPERATORS NOT PROFITEERS, DECLARES EDITOR OF LESLIE'S

In a recent issue of Leslie's Weekly, Dr. Charles A. Eaton, its associate editor, writing on "The Truth About the Coal Situation," urges that if the problems facing the soft coal industry were better understood by the public there would be a far different national attitude toward it. Dr. Eaton, who during the war was director of the national service section of the United States Shipping Board, and is regarded as an authority on industrial problems, says that the soft coal industry has been badly misrepresented before a "hostile and uninformed or misinformed public opinion which is ready to believe anything bad about the coal operators and nothing good." He dwells upon the serious shortage of coal cars

as one of the difficult problems facing the soft coal industry. In discussing prices of coal at the mines he says that "the rank and file of operators are not open to the charge of profiteering, nor have they made undue profits even during the war."

The article reads in part as follows:

"Next to agriculture coal is the nation's basic industry. What food is to the body coal is to the economic fabric of society. Along with these two stands transportation, constituting a threefold foundation for the prosperity, progress and stability of all classes and sections alike.

"The coal industry is of vital importance to every one, but its condition has been, and still is, so chaotic that one wonders how we have managed to get as far as we have without serious national disaster.

"Roughly speaking, there are about ten thousand bituminous coal mines and some seven thousand operators in our coal-producing areas. The country needs annually for normal use about five hundred million tons of bituminous coal. The mines now being operated have an annual capacity of 750,000,000 tons."

Dr. Eaton points out that, with an annual value of \$1,300,000,000 for the coal mined, the labor cost of producing it has been \$741,000,000, and that this was increased by \$200,000,000 under the recent wage advance of 27 per cent. awarded by the Bituminous Coal Commission. He goes on to say:

"It needs always to be kept in mind that after the coal leaves the mine there are the wholesaler and retailer who come in for a profit. And among these are some who do not hesitate to take all the traffic will stand.

"But the rank and file of the operators are not open to the charge of profiteering, nor have they made undue profits even during the war.

"According to reports furnished by the National Coal Association, and which I have not seen contradicted, some 400 operators in 1917 made profits of over 15 per cent. upon their capitalization, while 6600 operators made less than this. In that year the total output was sold for an average price of \$2.26 per ton at the mine. Out of this all operating expenses, fixed charges and taxes had to be paid.

"In 1918 under Government regulation the average price at the mine was \$2.61. According to Dr. Garfield, this price left only an average margin of 46 cents per ton, and of this 46 cents 30 cents was paid in Federal taxes.

"In the report of the Bituminous Coal Commission the tax returns to the Treasury of some 1551 coal-mining concerns are tabulated for 1918. These companies produce about one-third of the total output, and they represent fairly the industry as a whole. In that year 337 of these 1551 operators reported a loss. After deducting taxes the average per cent. net income to invested capital in 1918

for the 1214 companies reporting profits was less than 11 per cent., and for the entire 1551 companies it was 9.72 per cent.

"Under our present system of taxation a business must earn at least 10 per cent. in order to equal the income upon $4\frac{1}{2}$ per cent. Government bonds. So that it would seem that these coal companies can hardly be justly accused of undue profiteering.

"Coal mining is a hazardous calling both for investors and workers. It is a seasonal occupation involving slack times alternating with expensive forced output. There is a continuous car shortage, which means shutting down work sometimes for 20 days out of 30. Meanwhile in many mines water has to be pumped all the time whether coal is shipped or not. Slate caves in; sulphurous water destroys tools and tracks. Explosions and fires are a constant menace. As mining advances there is a growing depletion of resources and rapid depreciation of equipment.

"In view of these facts it is not surprising to learn that in 1915 the average return upon investment in the mining of bituminous coal was less than 1 per cent., while in 1913-1914 coal companies representing a capitalization of over \$100,000,000 were in the hands of receivers.

"The operators have been without any means of reaching public opinion with the facts. And they face a hostile and uninformed or misinformed public opinion, which is ready to believe anything bad about the coal operators and nothing good.

"There are certain radical changes necessary in order to place this basic industry upon a safe footing.

"First of all, the mines must have cars when they are needed, and as many as are needed, in order to distribute production over the whole year evenly.

"We must have a new national attitude toward the coal-mining industry. We must help the coal industry to escape from an intolerable car situation; from an unjust and ignorant public opinion; from autocratic, wasteful and destructive labor policies and practices; from a niggardly credit system, and from a destructive governmental attitude.

"Then we can have fair oversight and regulation by Government which will tend to make the industry more efficient; reduce costs and lower prices, while at the same time giving employer and employee a generous reward for hard and unpleasant work well done."

PERSONALS

Bruce White, Frank Reeves and J. M. Vetter will do oil work in Central Montana.

J. S. Diller is now able to attend to his office duties.

W. T. Thom, Jr., has returned from Austria, where he was engaged in relief work.

Dr. F. G. Cottrell, director of the Bureau of Mines of the Department of the Interior, was appointed by Secretary John Barton Payne to represent him on the Interdepartmental Defense Board of the Council of National Defense. Dr. Cottrell will succeed Dr. Van H. Manning, who served on the board from its creation until he resigned from the Government service to become the technical director of the Division of Research of the American Petroleum Institute.

H. A. Buehler, State geologist of Missouri, was a recent visitor to Washington, conferring with Bureau of Mines and other officials of the Interior Department on phases of work.

Victor C. Alderson, president of the Colorado School of Mines, Golden, Col., is in Europe. He will visit the shale deposits of Scotland and France, investigating recent discoveries and methods of recovery. Dr. Alderson is the chairman of the Oil Shale Section of the American Mining Congress.

Allen N. Rodgers of New York has resigned as assistant valuation engineer of the metals section of the Income Tax Unit, Treasury Department.

Lewis A. Levensaler, consulting mining engineer, announces opening of offices at suite 902 Hoge Building, Seattle, Wash.

D. F. Hewett has returned from Cuba, where he has been doing both private and Government geological work.

J. T. Pardee will soon leave for Western Montana and Washington to do work in glacial geology.

J. P. Dunlop is in charge of the Division of Mineral Resources in the absence of Mr. Loughlin, who is making investigations in Eastern Massachusetts.

C. E. Siebenthal returned June 17 from the Mississippi Valley, where he visited zinc mines in Wisconsin, lead mines in Southeastern Missouri, and fluor spar deposits in Southern Illinois and Western Kentucky.

J. P. Buwalda left Washington June 25 for Idaho, where he will do co-operative work with the Idaho Bureau of Mines and Geology in the study of tertiary basins of the western part of the State, giving special attention to possible oil and gas.



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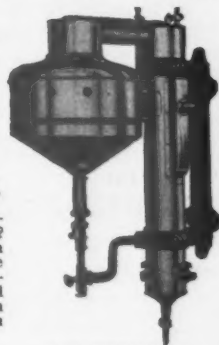
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 Thorne, Neale & Co., Philadelphia, Pa.

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 Jeffrey Mfg. Co., Columbus, Ohio.
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CONCENTRATORS (Table)

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 Mine Equipment & Supply Co., Denver, Colo.
 Mine & Smelter Supply Co., Denver, Colo.

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 Wellman-Lewis Co., Hibernian Bldg., Los Angeles, Cal.

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 Electric Service Supplies Co., 17th and Cambria Sts., Phila., Pa.
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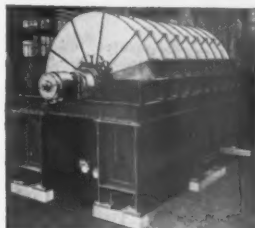


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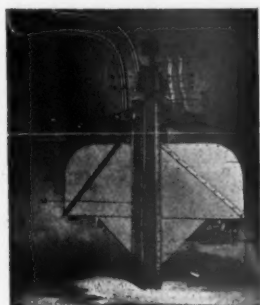
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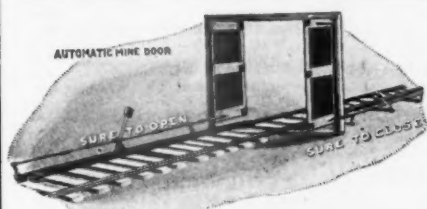
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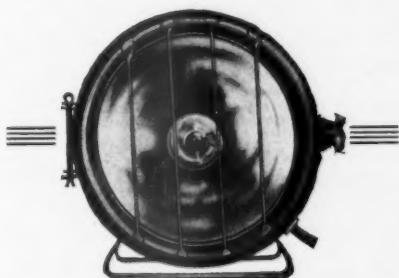


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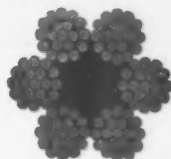
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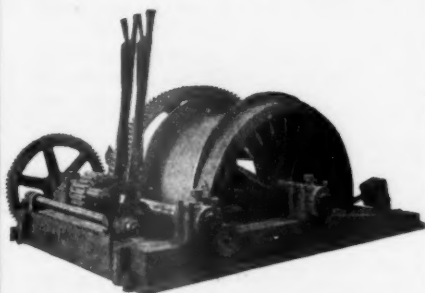
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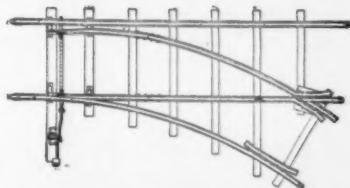
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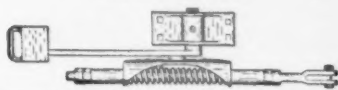
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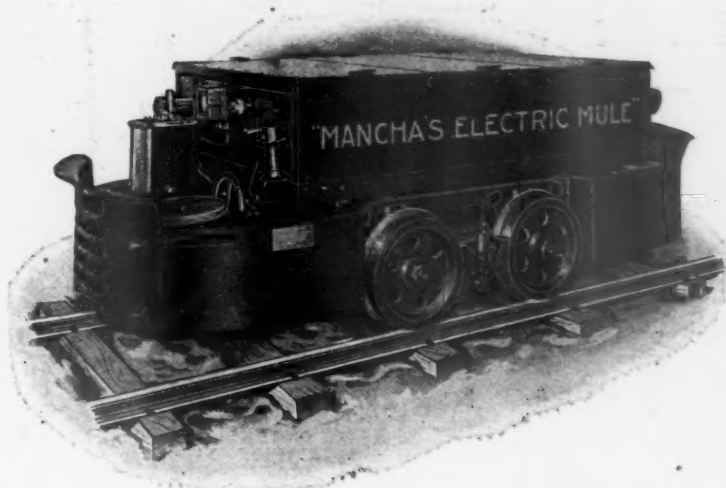
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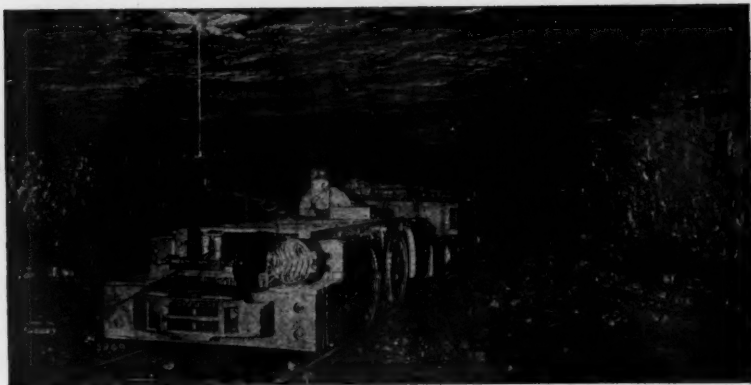
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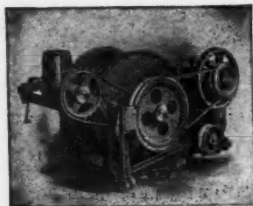


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The Cable reel can be either driven from the locomotive motor by means of a belt or by a small motor provided for the purpose. Tension on the Cable is controlled by motorman. A conveniently placed lever operates a belt tightener which regulates the tension in the Cable.

The center of the drum is made of wood and the Steel flanges are thoroughly insulated from the locomotive frame, and no ground can therefor occur in case the insulation should be worn off from the cable. The belt drive provides a slip preventing pulling the cable in two, or pulley down the trolley wires.

THE JEFFREY MFG. CO., 958 North 4th Street, COLUMBUS, OHIO

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